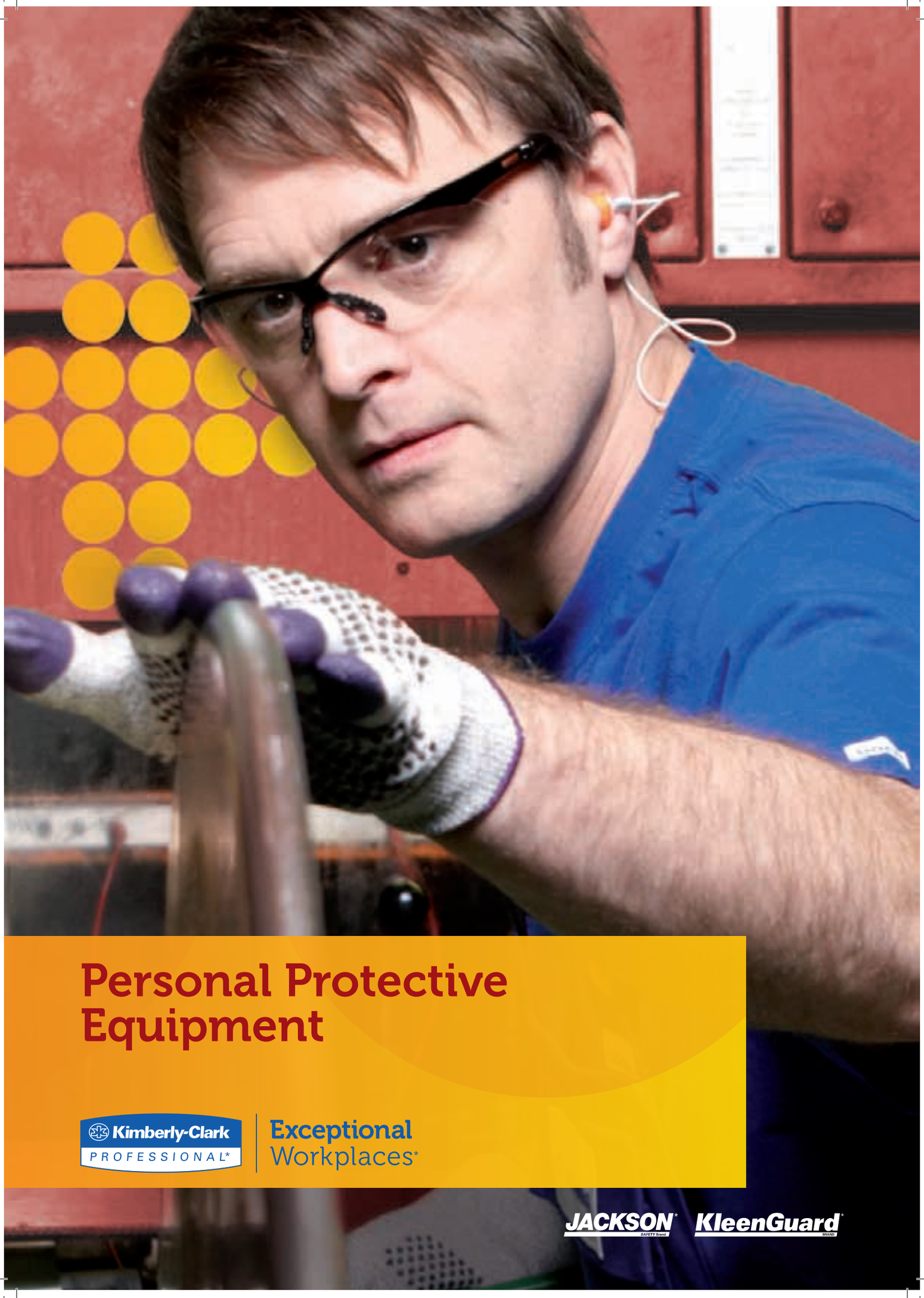


Personal Protective Equipment

Kimberly-Clark PROFESSIONAL*

Exceptional Workplaces*

JACKSON SAFETY Brand*

KleenGuard BRAND

Together we build safer workplaces

We are much more than a supplier of quality products.
We are in the people business.
Because people are the most important asset.

We are a great source of current safety information, and we can help you stay on top of today's critical safety issues – to maintain business continuity, minimise lost work time and prepare for situations that threaten the safety of your workforce.

Count on **KIMBERLY-CLARK PROFESSIONAL*** to help you create an Exceptional Workplace.
Healthier, safer, more productive.

JACKSON* SAFETY Brand KleenGuard* BRAND

For more information, please visit
www.kcprofessional.com

Contents

Protective eye and face wear, respirators, hearing, gloves and protective clothing

02 **Protective clothing**
03 Protective clothing Legislation – Product selector
04 Protective clothing legislation – The legal responsibilities
05 KLEENGUARD* Protective Clothing Product selector
06 KLEENGUARD* Protective Clothing Our Quality Shows In Every Format...
07 KLEENGUARD* Protective Clothing A71 Chemical Permeation and Liquid Jet Protection Clothing
08 KLEENGUARD* Protective Clothing Jacket and Trousers A70 Chemical Spray Protection Apparel
09 KLEENGUARD* Protective Clothing A40 Liquid and Particle Protection Clothing
10 KLEENGUARD* Protective Clothing A30 Breathable Splash and Particle Protection stretch Apparel
11-13 KLEENGUARD* Protective Clothing A20+ Breathable Particle Protection Clothing
14 KLEENGUARD* Protective Clothing A40 and A10 Accessories

15 **Gloves**
16 Glove Legislation – The legal responsibilities
17 JACKSON SAFETY* / KLEENGUARD* Gloves G80 and G20 Chemical Selection Guide
18 JACKSON SAFETY* / KLEENGUARD* Product selector
19 JACKSON SAFETY* / KLEENGUARD* G80 Chemical Protection Gloves
20 JACKSON SAFETY* G60 Cut Resistant Gloves
21 JACKSON SAFETY* G60 Sleeves
22 JACKSON SAFETY* / KLEENGUARD* Gloves G40 Mechanical Protection Gloves
23 JACKSON SAFETY* / KLEENGUARD* Gloves G20 Atlantic Green Chemical Resistant Gloves
24 KLEENGUARD* Gloves G10 Nitrile General Purpose Gloves

25 **Eye and Face Wear**
26 Eye and Face Wear Legislation – The legal responsibilities
27 JACKSON SAFETY* Eye Wear – Product selector
28 JACKSON SAFETY* Eye Wear V60 Nemesis Rx, V50 DTG, V40 HellRaiser and V30 Nemesis
29 JACKSON SAFETY* Eye Wear V30 Nemesis VL, V20 Purity, V10 Unispec and V10 Element
30 JACKSON SAFETY* Eye Wear V80 Splash, V90 Shield Goggle Protection
31 JACKSON SAFETY* Face Protection F20 Face Shield and Brow Guard

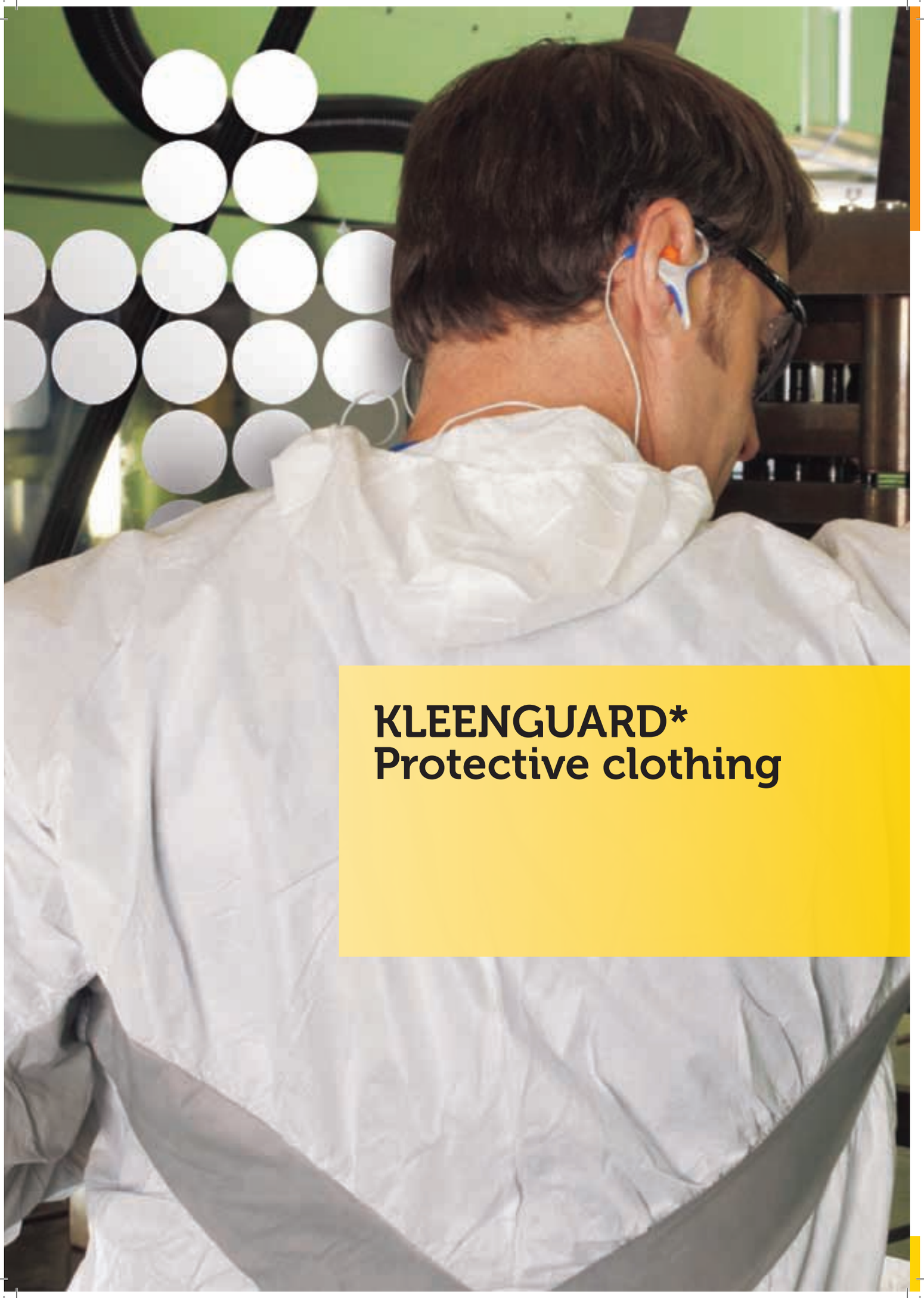
32 **Respirators**
33 Respirator Legislation – The legal responsibilities
34 JACKSON SAFETY* Respirators – Product Selector
35 Respirators – Frequently asked questions
36 JACKSON SAFETY* Respirators R20 – R10 Moulded Comfort Strap range

37 **Hearing Protection**
38 Hearing Protection Legislation and Product selector
39 JACKSON SAFETY* H50 and H30 Products
40 JACKSON SAFETY* H20 and H10 Products

41 Chemical Legislation
42 Chemical Protection Guide - Chemical permeation
43 Chemical Protection Guide - Chemical permeation
44 Chemical Protection Guide - Chemical permeation
45 Chemical Protection Guide - Chemical permeation
46 Chemical Protection Guide - Chemical permeation

47 Making compliance easy – The legal responsibilities
48 Comfort and productivity – Safety essentials

49 More Essentials from KIMBERLY-CLARK PROFESSIONAL*
50 REDUCE TODAY, RESPECT TOMORROW*

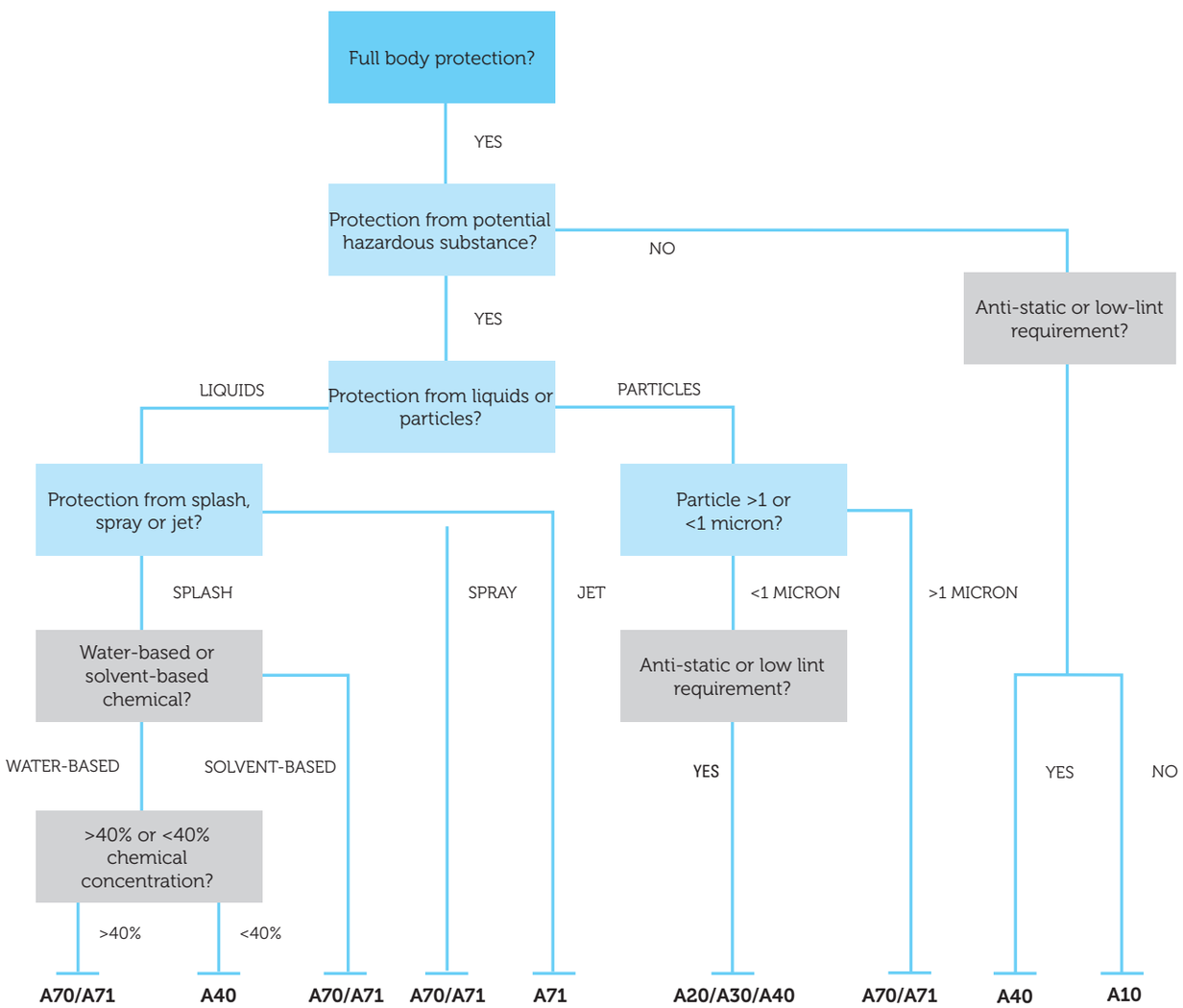


KLEENGUARD*
Protective clothing

Protective clothing legislation
Product selector

A comprehensive range of apparel products providing the most appropriate personal protection to meet your needs.

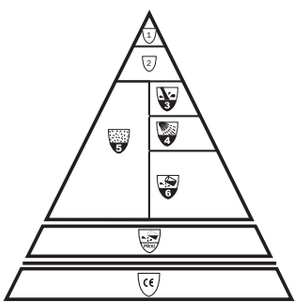
Selecting the right apparel
To increase productivity and cost-effectiveness, workers must be able to work comfortably and safely, being protected against a broad spectrum of possible hazards. Use the apparel selector in order to determine the right garment for the right task.



The selector is a guide only. It is the responsibility of the employer to make sure the apparel is suitable for its intended use. We suggest that you always check the latest version of KIMBERLY-CLARK PROFESSIONAL* product literature to get more information about the products.

Protective clothing legislation
The legal responsibilities

European guidelines within the CE Complex category help users identify the correct garment for the task. This information enables you to decide which product is suitable for your use.



Type 1	Gas tight clothing	**Type 5**	Particle protection
Type 2	Non gas tight clothing	**Type 6**	Limited splash protection
Type 3	Liquid tight clothing	**PB[6]**	Partial body protection
Type 4	Spray tight clothing		

EN 14605:2005
Type 3
Liquid tight clothing

EN 14605:2005
Type 4
Spray tight clothing

EN 13034:2005
Type 6
Limited splash protection

EN ISO 13982-1:2004
Type 5
Particle protection

CE0120

EN 1149-1:1995
Antistatic

EN 1073-2:2002
Radioactive dust contamination protection

EN 14126:2003
Infective agents protection

To display the relevant Type Classification, as KIMBERLY-CLARK PROFESSIONAL* does, the manufacturer must test the garment to accepted European norms and have these results validated by an external certification body.

CE 0120 Assured
KIMBERLY-CLARK PROFESSIONAL* has been accredited the CE mark of Complex design (Category 3) for its A20+, A40 & A71 KLEENGUARD* Protective apparel clothing by SGS Weston-Super-Mare United Kingdom Certification Services Ltd (EC Notified Body Number 0120). This was achieved by satisfying the examiner that products and quality systems meet the levels required by EU legislation.

KLEENGUARD* Protective clothing Protection Level Symbols
KIMBERLY-CLARK PROFESSIONAL* product identity system includes:

- Standard symbols to indicate products meeting or exceeding the requirements of specific European standards
- Multi-lingual user information
- Packaging to protect garments until use

KLEENGUARD* Protective Garments such as A20+, A40 & A71 conform to EN 340 recommendations for sizing. Use the chart to help you select the right size garment.

Body measurements (cm)		
Size	**Height**	**Chest**
S	164-170	96-104
M	170-176	104-112
L	176-182	112-120

Size	**Height**	**Chest**
XL	182-188	120-128
XXL	188-194	128-136
XXXL	194-200	136-144

KLEENGUARD* Protective Clothing
Product selector

A comprehensive range of protective clothing products providing the most appropriate personal protection to meet your needs.

Chemical Guide

Pages 41-46

Selecting the correct Safety Protective clothing product for your particular circumstances can be difficult. The following information may be helpful:

- A71 and A80 are our chemical protective coveralls meeting EN 14605:2005 Type 3. To assist you further, we have listed our Chemical permeation results on pages 43 - 48. For up to date information please visit our website www.kcprofessional.com/uk/chemicalprotection
- A50, A45, A40 & A20+ are our EN 13034:2005 Type 6 & EN ISO 13982-1:2004 Type 5 offering.
- A50 is a unique, treated SMS(2) product offering good levels of Protection and Comfort in a single base-sheet.
- A40 is a film laminate product that offers market leading levels of protection but is not as breathable as A50.
- A45 is a combination of A40 & A50. A40 provides high levels of protection to the front where the majority of contamination will occur with A50 at the back providing breathability.
- A20+ is an SMS product that provides high levels of comfort due to the breathability of the protective base-sheet.

Product	Test Method	A20+	A25	A40	A45	A50	A71	A80
		High Levels of Comfort	High comfort with superior freedom of movement	High Levels of Protection	Combination of A40 front for protection with A50 back for comfort	Combines reasonably high levels of Protection and Comfort	Chemical Protection	High level Chemical Protection
Type 3	EN 14605:2005						Pass	Pass
Type 4	EN 14605:205						Pass	
Type 5	EN ISO 13982-1:2004	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Type 6	EN 13034:2005	Pass	Pass	Pass	Pass	Pass		
Infective agents	EN 14126:2003						Pass	Pass
Surface Resistivity	EN 1149-1:1995			Pass	Pass	Pass	Pass	Pass
Radioactive dust	EN 1073-2:2002	Pass		Pass	Pass	Pass	Pass	Pass
Fabric Tests								
Abrasion resistance	EN 530 Method 2	2	1	6	2	3	6	6
Flex cracking resistance	ISO 7854 Method B	5	1	4	4	4	2	5
Trapezoidal tear resistance	ISO-9073-4	2	1	2	2	2	2	3
Tensile strength	EN ISO 13935-2	1	1	2	1	1	1	2
Seam strength	EN ISO 13935-2	3	2	3	3	3	3	4
Puncture resistance	EN 863	2	1	2	2	2	2	2
Resistance to ignition	EN 13274.4 Method 3	Pass	Pass	Pass	Pass	Pass	Pass	Pass
EN 368								
Repellency to liquids	EN 368 (30% H2SO4)	3	3	3	3	3		
	EN 368 (10% NaOH)	3	3	3	3	3		
Resistance to penetration by liquids	EN 368 (30% H2SO4)	3	3	3	3	3		
	EN 368 (10% NaOH)	3	3	3	3	3		
EN 374:3								
Resistance to permeation	EN 374:3 (30% H2SO4)						6	6
	EN 374:3 (10% NaOH)						6	6
Whole Garment Tests (Tests performed with taping at wrists, ankles & hood)								
Resistance to penetration by liquids in the form of a light spray (mist test)	EN 468 (modified)	Pass	Pass	Pass	Pass	Pass	Pass	
Determination of resistance of suits to penetration by aerosols and fine particles	Pr ISO 13982-2 (Average total inward leakage)	4.41%	4.26%	5.09%	3.4%	4.34%	4.13%	3.6%

The selector is a guide only. It is the responsibility of the employer to make sure the protective clothing is suitable for its intended use. We suggest that you always check the latest version of KIMBERLY-CLARK PROFESSIONAL* product literature to get more information about the products.

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com
(2) Spunbond Meltblown Spunbond

KLEENGUARD* Protective Clothing
Our Quality Shows In Every Format...

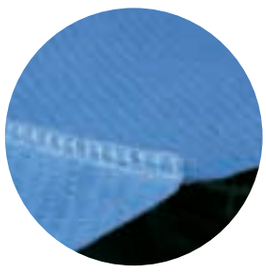
Zipper front, no elastic

Zipper front, elastic back, wrists & ankles

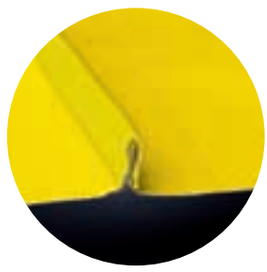
Zipper front, elastic back, wrists, ankles & hood

Zipper front, elastic back, wrists, ankles, hood & boots

And In Every Seam.



A **SERGED SEAM** is a basic stitched seam that's appropriate for exposure to non-hazardous substances. Overlap stitching provides strength and durability.



A **BOUND SEAM** is a serged seam that's reinforced with binding for strength and tear resistance.

A **TAPED SEAM** is serged, then reinforced with a film tape that's resistant to water and many liquid chemicals.

If your application requires a chemical resistant taped seam, you should ensure that the tape offers appropriate resistance to the chemical involved.

KLEENGUARD* Protective Clothing
A71 Chemical Permeation and Liquid Jet Protection Clothing

Suitable for handling of aqueous chemicals, low pressure industrial cleaning and maintenance.

Protection against aqueous chemical jet & spray[1]

- Durable film laminate with sewn and taped seams provides a strong barrier to chemical spray[1]
- Sewn and taped seams with tear resistant fabric offers a strong liquid-tight barrier
- Storm-flap height and hood designed for easier taping to a respirator
- Elasticated hood, cuffs and waist designed for better comfort and safety
- Highly visible for improved worker safety
- Silicone free and anti-static fabric EN 1149-1 for critical areas
- EN 14126 approved for infective agents protection
- EN 1073-2 approved for radioactive dust protection[2]
- Keep away from flames

Product Performance Data

Property		
Fabric Tests	Test Method	Class[3] or Result
Abrasion resistance	EN 530 Mth 2	6
Flex cracking resistance	ISO 7854 Mth B	2
Trapezoidal tear resistance	ISO 9073-4	2
Puncture resistance	EN 863	2
Tensile strength	EN ISO 13934-1	1
Resistance to permeation	EN 374:3 (10% NaOH)	6
	EN 374:3 (30% H_2SO_4)	6
Seam strength	EN ISO 13935-2	3
Surface resistivity – inside surface	EN 1149-1:1995	< 5 x 10^{10} ohm
Infective agents	EN 14126:2003 (A)	PASS

Whole Garment Tests		
Resistance to penetration by liquids (Jet test)	EN ISO 17491-4	PASS
Determination of resistance of suits to penetration by aerosols and fine particles	pr ISO 13982-2	Average Total Inward Leakage 4.13% avg
Radioactive dust	EN 1073-2:2002	1

(Tests performed with taping at wrists, ankles and hood)

(1) Chemical test data can be found on our website, www.kcprofessional.co.uk/chemicalprotection
(2) Provides no protection against radioactive radiation
(3) As specified in European Standards documents EN 13034:2005 and EN ISO 13982-1:2004

High performance protective clothing fabric

Outer layer – film coating resists splash and spray from many liquids and dry particulates.

Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene.

CE0120

EN 14605:2005 Type 3-B Liquid tight clothing

EN 14605:2005 Type 4-B Spray tight clothing

EN ISO 13982-1:2004 Type 5-B Particle protection

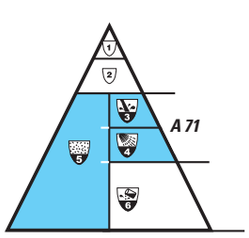
EN 1073-2:2002 Radioactive dust contamination protection

EN 14126:2003 Infective agents protection

EN 1149-1:1995 Antistatic

Chemical Guide

Pages 41-46



Description	Size/Code	M	L	XL	XXL	XXXL	Colour	Case Contents	PPE Classification	Type
A71 Coverall		96760	96770	96780	96790	96800		10 ×	CAT III	3, 4 & 5

(4) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

KLEENGUARD* Protective Clothing Jacket and Trousers
A70 Chemical Spray Protection Apparel

Features
- 1.5 mil polyethylene film coated spunbond polypropylene fabric
- Soft and quiet fabric
- A wick-away lining for enhanced comfort
- Patented REFLEX* Design is 7-1/2 times less likely to rip out than ANSI minimums – provides 12% more chest room and 6% longer body length
- Taped storm flap
- Bound seams
- Liquid-resistant, extra-long zipper
- NFPA 99 Compliant Antistatic Material

KLEENGUARD* A70 Apparel Fabric Properties

Physical Properties	Test Method	Results
Tensile Strength (MD)	ASTM D5034	33.8 lbs
(CD)		24.1 lbs
Trapezoidal Tear (MD)	INDA IST 100.2	12.3 lbs
(CD)		6.7 lbs
Mullen Burst	ISO 13938-1	27.9 psi
Flammability	CPSC 1610	Class 1
Static Decay (< 0.5 secs)	NFPA 99	Pass
Barrier Properties	**Test Method**	**Results**
Blood Penetration	ASTM F1670	Pass
Bloodborne Pathogens	ASTM F1671‡	Pass

‡ Standard Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Bloodborne Pathogens Using Phi-X174 Bacteriophage Penetration as a Test System.

KLEENGUARD* A70 Apparel Fabric Liquid Chemical Resistance Test

Chemicals ASTM F1001	Liquid Penetration ASTM F903 Test Duration: 60 mins. Saturation Exposure	Vapor Permeation ASTM F739 Normalized Breakthrough (min.)	Vapor Permeation ASTM F739 Rate (µg/cm²/min)
Acetone	Pass	Immediate	7.9
Acetonitrile	Pass ⚠	Immediate	8.97
Carbon Disulfide	Pass ⚠	Immediate	76.3
Dichloromethane	Pass ⚠	Immediate	85.1
Diethylamine	Pass ⚠	Immediate	High
n,n-Dimethylformamide	Pass	Immediate	2.54
Ethyl Acetate	Pass	Immediate	40.3
n-Hexane	Pass ⚠	Immediate	High
Methanol	Pass ⚠	Immediate	1.71
Nitrobenzene	Pass	Immediate	97.4
Sodium Hydroxide (50%)	Pass	>480	Not detected
Sulfuric Acid (98%)	Pass	>480	Not detected
Tetrachloroethylene	Pass ⚠	Immediate	High
Tetrahydrofuran	Pass	Immediate	32.8
Toluene	Pass ⚠	Immediate	High

⚠ WARNING: Fabric passes penetration testing; however, the chemical is a known or suspected carcinogen or skin absorbed toxin.

KLEENGUARD* A70 - Level B/C Coveralls - Bound Seams - Yellow

Zipper Front, Storm Flap, Elastic Wrists, Ankles & Hood	Size	Case Count
09812	M	12
09813	L	12
09814	XL	12
09815	XXL	12
09816	XXXL	12
09817	XXXXL	12
09818	XXXXXL	12

- Hazardous waste remediation
- Environmental cleanup
- Petrochemical/oil refining
- Acid/caustic handling
- Biohazard cleanup
- Tank cleaning
- Pharmaceutical manufacturing

KLEENGUARD* Protective Clothing
A40 Liquid and Particle Protection Clothing

Suitable for critical production environments such as pharmaceutical industries, manufacturing, utilities, electronics, agriculture and paint spraying.

Protection against chemical splash and particles

- Film laminate technology provides an outstanding barrier against a wide range of chemicals
- Particle protection, holds out > 99% of fibres greater than 1 micron
- Strong triple stitched seams help protect against tearing
- Hood designed for respirator use and freedom of movement
- Full length zip, eases ability to get in/out of garment
- Ultra low-lint performance, film laminate and internal seams significantly reduce levels of lint
- Anti-static fabric EN 1149-1 for critical areas
- Silicone free, ideal for paint-spraying
- EN 1073-2 approved for radioactive dust protection(1)
- Compressed packaging provides auto-dispensing system and reduces storage space
- Sealed polybags for low contamination risk

Product Performance Data

Property		
Fabric Tests	**Test Method**	**Class(2) or Result**
Abrasion resistance	EN 530 Mth 2	6
Flex cracking resistance	ISO 7854 Mth B	4
Trapezoidal tear resistance	ISO 9073-4	2
Puncture resistance	EN 863	2
Tensile strength	EN ISO 13934-1	2
Repellence to liquids	EN 368 (10% NaOH)/(30% H2SO4)	3 / 3
Resistance to penetration	EN 368 (10% NaOH)/(30% H2SO4)	3 / 3
Resistance to ignition	EN 13274-4 Mth 3	PASS
Seam strength	EN ISO 13935-2	3
Surface resistivity	EN 1149-1	< 5 x 10^{10} ohm
Whole Garment Tests		
Resistance to penetration by liquids in the form of a light spray (mist test)	EN 468 (modified)	PASS
Determination of resistance of suits to penetration by aerosols and fine particles	pr ISO 13982-2	Average Total Inward Leakage 5.09% avg
Radioactive dust	EN 1073-2:2002	1

(Tests performed with taping at wrists, ankles and hood)

(1) Provides no protection against radioactive radiation
(2) As specified in European Standards documents EN 13034:2005 and EN ISO 13982-1:2004

High performance clothing fabric

Outer layer – film coating resists splash and spray from many liquids and dry particulates.

Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene.

CE0120

EN ISO 13982-1:2004 Type 5 Particle protection

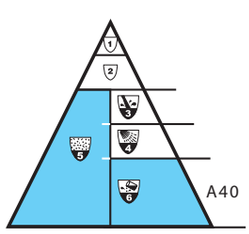
EN 13034:2005 Type 6 Limited splash protection

EN 1073-2:2002 Radioactive dust contamination protection

EN 1149-1:1995 Antistatic

Chemical Guide (3) Pages 41-46

Accessories (4) Page 14



Description	Size/Code	S	M	L	XL	XXL	XXXL	Colour	Case Contents	PPE Classification	Type
A40 Coverall		99790	99791	99792	99793	99794	99795		25 ×	CAT III	5 & 6

(3) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com
(4) Accessories available, please see page 14.

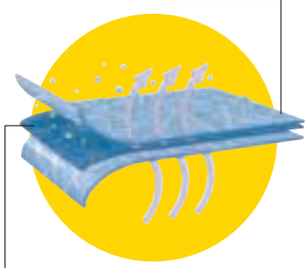
KLEENGUARD* Protective Clothing

A30 Breathable Splash and Particle Protection stretch Apparel

Features

- Breathable, patented MICROFORCE* Barrier SMS Fabric
- Heavier & more durable than KLEENGUARD* A20 Coveralls
- 25 times more breathable with comparable particle holdout to leading market apparel
- Strong and abrasion resistant
- Patented REFLEX* Design is 7-1/2 times less likely to rip out than ANSI minimums – provides 12% more chest room and 6% longer body length
- Seamless front provides more protection in primary exposure areas
- NFPA 99 Compliant Antistatic Material
- Elastic back
- Zipper flap

KLEENGUARD* Apparel
MICROFORCE* Barrier SMS Fabric
Outer Layers – Cloth-like, yet tough and abrasion-resistant spunbond polypropylene

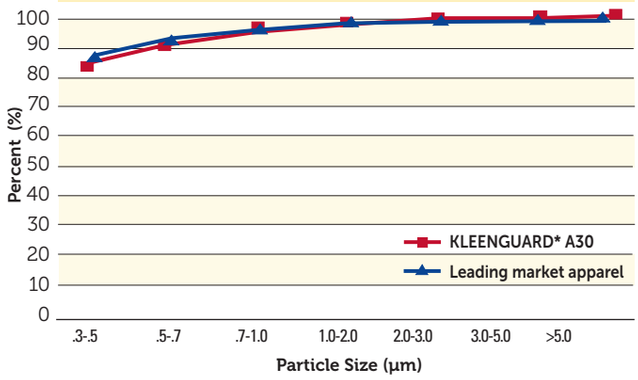


Middle Layers – Intricate web of microfibers that filter out many water-based liquids and dry particulates

KLEENGUARD* A30 Apparel Fabric Properties

Physical Properties		Test Method	Results
Tensile Strength	(MD)	ASTM D5034	29.7 lbs
	(CD)		20.8 lbs
Trapezoidal Tear	(MD)	INDA IST 100.2	9.9 lbs
	(CD)		6.9 lbs
Elongation	(MD)	ASTM D5034	41%
	(CD)		53%
Mullen Burst		ISO 13938-1	42.5 psi
Static Decay (<0.5 sec)		NFPA 99	Pass
Flammability		CPSC 1610	Class 1
Barrier Properties		**Test Method**	**Results**
Hydrohead		AATCC 127-1998	88.2 cm
Particle Holdout (1.0-2.0 microns)		Independent Lab	96.7%
Comfort Properties		**Test Method**	**Results**
Air Permeability		ASTM D737	29.5 cfm
Moisture Vapor Transport Rate		ASTM E96	4506 g/m²/24 hr

KLEENGUARD* A30 Apparel Fabric
Particle Holdout



KLEENGUARD* A30 Coveralls

Zipper Front With 1" Flap, Elastic Back & Front, Wrists, Ankles & Hood	Size	Case Count
46112	M	25
46113	L	25
46114	XL	25
46115	XXL	25
46116	XXXL	21
46117	XXXXL	21

Typical Uses

- Pharmaceutical research
- Fine dry particle contamination
- Aerospace
- Maintenance/General manufacturing

KLEENGUARD* Protective Clothing
A20+ Breathable Particle Protection Clothing

KLEENGUARD* A20+ Product Description

Intended Use
KLEENGUARD* A20+ Protective garments

- Limited life protective clothing designed to protect the user against liquid aerosols, spray and light splashing where the risk of chemical exposure is defined as low risk.
- Approved as Complex Design (category 3) equipment offering protection to the levels specified for Type 6 (performance requirements for chemical protective suits offering limited protective performance against liquid chemicals) and Type 5 (particulates) by CEN.

Product Description
Kimberly-Clark has invested in garment design and in the development of materials specifically for protective clothing to be able to offer the user the ideal combination of protection with comfort. Wearing garments of high breathability can reduce the effects of heat stress and therefore maintaining the efficiency and effectiveness of the wearer.

The fabric
KLEENGUARD* A20+ Garments are made from an engineered structure called SMS which was invented by Kimberly-Ciark and initially used to offer medical staff protection with comfort in critical conditions.
The fabric has been developed to suit it for the challenges of industrial applications. The 3 layers of the fabric are made up of polyolefin fibres, which are carefully engineered to deliver a combination of strength, durability and protection. The outer layers use large strong fibres to resist wear and tear and protect the central core layer. The centre of the structure is made up of closely packed fine fibres, which act as a highly efficient filter to particles, and as a barrier to many liquids.

The seams
To provide high strength seams with barrier properties serged seams are used with triple overlock stitching.

The Zip
Top quality full-length zips are used with stoppers to prevent strain.

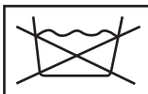
Silicone Free
All components are carefully selected and specified as silicone free — an important reassurance for anyone working with paint or sensitive surfaces.

Symbols and Marking on the garment — what they tell you

	EN 1149-1 Antistatic Clothing (Electrostatic dissipative protective clothing to avoid incendiary discharges)
	This symbol demonstrates that the garment is suitable for protection against chemicals. The CE mark followed by 0120 indicates that this is equipment of Complex Design (cat 3), and that the product is manufactured under a quality system, which has been approved by, notified body 0120 (SGS Weston-Super - Mare).
	Type 5 — Limited use clothing offering particle protection.
	Type 6 - Limited splash clothing.
	The open book pictogram ~ indicates that the user should read and understand the USER INSTRUCTIONS before using the garment.
	Inflammable. Keep away from open flames, sparks or intense heat sources. The fabric will begin to melt at approx. 120°C

KLEENGUARD* Protective Clothing
A20+ Breathable Particle Protection Clothing

Symbols and Marking on the garment - what they tell you

	Do not wash		Do not iron
	Do not tumble dry		Do not dry clean
	Do not use chlorine — based bleach		

Product Performance Data
To be certified as a Type 5 and Type 6 chemical protective garment, KLEENGUARD* A20+ must meet certain performance requirements laid down by CEN, the European committee for normalisation. The standards apply throughout all member states of the EU.

For each property test data is classified into bands indicted by a CLASS number on a scale where 1 is lowest. There are a different number of classes for different tests. For some tests a simple pass /fail result is given.

The product performance data for KLEENGUARD* A20+ Coveralls is shown below.

Limited Use Chemical Protective Clothing (Type 5 & 6)

Property	Test Method	Class/Result
Abrasion Resistance	EN 530 M2	Class 2 of 6
Stability to Heat	ISO 5978	Class 2 No Blocking
Flex Cracking Resistance	ISO 7854 M B	Class 5 of 6 Visual
Trapezoidal Tear Resistance	ISO 9073-4	Class 1 / 2* of 6
Puncture Resistance	EN 863	Class 2 of 6
Repellence to Liquids	EN ISO 6530	10%NaOH Class 3 30%N_2SO_4 Class 3
Repellence to Penetration by Liquid Chemicals	EN ISO 6530	10%NaOH Class 3 30%N_2SO_4 Class 3
Resistance to Ignition	EN 1146	PASS
Seam Strength	ENISO 13935 - 2	Class 3
Repellence to Penetration by Liquid (spray test)	EN ISO 17941 - 4 (modified)	PASS
Determination of resistance of suits to penetration by aerosols and fine particles	EN ISO 13982-2	Average 10.9%
Surface Resistivity	EN1149-5 : 2008	PASS

Type 6 EN 13034: 2005
TYPE 5 to EN ISO 13982-1: 2004

KLEENGUARD* Protective Clothing
A20+ Breathable Particle Protection Clothing

Suitable for handling powders, general maintenance, construction and contract cleaning.

Protection against particles, fibres and chemical splash

- Durable SMS fabric keeps out 99% of particles larger than 1 micron (I.O.M Aloxite test)
- Triple stitched internal seams protect against tearing
- Breathable fabric reduces the risk of heat stress
- Specially designed body, hood and waist for comfort and safety
- Silicone free for critical areas
- Available in white
- EN 1073-2 approved for radioactive dust protection[1]

Product Performance Data

Property		
Fabric Tests	**Test Method**	**Class[2] or Result**
Abrasion resistance	EN 530 Mth 2	1
Flex cracking resistance	ISO 7854 Mth B	3
Trapezoidal tear resistance	ISO 9073-4	2
Puncture resistance	EN 863	1
Tensile strength	EN ISO 13934-1	1
Repellence to liquids	EN 368 (10% NaOH)/(30% H2SO4)	3 / 3
Resistance to penetration by liquids	EN 368 (10% NaOH)/(30% H2SO4)	3 / 3
Resistance to ignition	EN 13274-4 Mth 3	PASS
Seam strength	EN ISO 13935-2	2
Whole Garment Tests		
Resistance to penetration by liquids in the form of a light spray (mist test)	EN 468 (modified)	PASS
Determination of resistance of suits to penetration by aerosols and fine particles	pr ISO 13982-2	Average Total Inward Leakage 4.41% avg
Radioactive dust	EN 1073-2:2002	1

(Tests performed with taping at wrists, ankles and hood)

(1) Provides no protection against radioactive radiation
(2) As specified in European Standards documents EN 13034:2005 and EN ISO 13982-1:2004

High performance SMS fabric
Outer layers – cloth-like, yet strong and abrasion-resistant spunbond polypropylene.

Middle layer – intricate web of microfibres that filters out many water-based liquids and dry particulates.

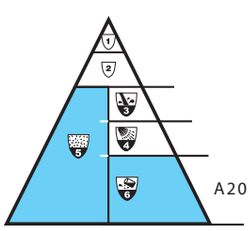
CE0120

EN ISO 13982-1:2004
Type 5
Particle protection

EN 13034:2005
Type 6
Limited splash protection

EN 1073-2:2002
Radioactive dust contamination protection

Accessories
Page 14



Description	Size/Code	S	M	L	XL	XXL	Colour	Case Contents	PPE Classification	Type
A20+ Coverall		95150	95160	95170	95180	95190		25 ×	CAT III	5 & 6

KLEENGUARD* Protective clothing
A40 Accessories

Apron / Sleeve / Overboot
- Constructed using the same material as our A40 Anti-static Protective clothing.
- CAT I products

	Description	Size/Code	Colour	Case Contents	PPE Classification
	A40 Accessory – Short Apron	44481	◯	100 ×	CAT I
	A40 Accessory – Sleeve	98730	◯	200 ×	CAT I
	A40 Accessory – Overshoe	98700	◯	200 ×	CAT I
	A40 Accessory – Overboot	98800	◯	100 ×	CAT I

Overshoe with Sole
- As above with durable sole

	Description	M/L	XL/XXL	Colour	Case Contents	PPE Classification
	A40 Accessory – Overshoe with Sole	98710	98720	◯	200 ×	CAT I
	A40 Accessory – Overboot with Sole	98810	98820	◯	100 ×	CAT I

A10 Accessories

Mob Cap
- Designed to keep hair in place and reduce the risk of contamination

	Description	Size/Code	Colour	Case Contents	PPE Classification
	A10 Accessory – Mob Cap	82600	◯	1000 ×	CAT I

JACKSON SAFETY* KLEENGUARD*
Gloves and Sleeves

Glove legislation
The legal responsibilities

When a glove is examined against a typical test standard, a performance level is normally assigned (between 0 and 5). Level 0 specifies that the glove is either untested or falls below the minimum performance level. A performance level 'X' signifies that the glove is not designed for the use covered by the corresponding test. Higher numbers indicate higher levels of performance.

EN 420: 2003
(General Requirements for Protective Gloves)

Glove Design and Construction
- Gloves should offer the greatest possible degree of protection in the foreseeable conditions of end use
- If seams are included, the strength of these seams should not reduce the overall performance of the glove.

Innocuousness
- Gloves should not cause any adverse harm to the end user
- Glove pH must be between 3.5 and 9.5
- Chromium (VI) content should be below detection (for gloves containing leather)
- Gloves made from natural rubber latex will be tested for extractable proteins according to EN 455-3

Cleaning Instructions
- If care instructions are provided, glove performance shall not be diminished when the maximum number of recommended cleaning cycle is used.

Sizing
- Gloves shorter in length than the required minimum will be marked 'Fit for Special Purpose'.

Dexterity
- If required, performance to be graded (Level 0 - 5)

EN 388: 2003
(Protective Gloves Against Mechanical Risks)

The 'Mechanical Risks' pictogram is accompanied by a 4-digit code:
- (a) Abrasion resistance (0 to 4)
- (b) Blade cut resistance (0 to 5)
- (c) Tear resistance (0 to 4)
- (d) Puncture resistance (0 to 4)

The relevant performance levels below should be clearly identifiable on the product and primary packaging

Test	Level 1	Level 2	Level 3	Level 4	Level 5
6.1 Abrasion resistance (number of cycles)	100	500	2000	8000	–
6.2 Blade cut resistance (index)	1,2	2,5	5,0	10,0	20,0
6.3 Tear resistance (N)	10	25	50	75	–
6.4 Puncture resistance (N)	20	60	100	150	–

EN374:2003
(Protective Gloves Against Chemicals and Micro-organisms)

When tested according to a water tightness and/or air tightness test, a glove shall not leak when an Acceptable Quality Level (AQL) is applied

Performance level	Acceptable quality level unit	Inspection levels
Level 3	< 0.65	G1
Level 2	< 1.5	G1
Level 1	< 4.0	S4

The Chemical pictogram (shown right) must be accompanied by three digits, referring to a permeation performance level 2 (or higher) achieved against three chemicals from a standard list, represented in Annex A of EN374-1:2003

Code	Chemical	CAS Number	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile compound
D	Dichloromethane	75-09-2	Chlorinated paraffin
E	Carbon disulphide	75-15-0	Sulphur containing organic compound
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofurane	109-99-9	Heterocyclic and ether compound
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-85-5	Saturated hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulphuric acid 96%	7664-93-9	Inorganic mineral acid

The 'Low Chemical Resistant' pictogram is used for gloves that do not achieve level 2 against at least three chemicals from the defined list, yet still comply with the Penetration test.

The 'Micro-organism' pictogram is used when a glove meets at least a performance level 2 for the Penetration test.

Gloves in Contact with Foodstuffs

We offer you the guarantee of compatibility between foodstuffs and glove components and full compliance with the toughest European and national standards in terms of food contact and food hygiene.

JACKSON SAFETY* / KLEENGUARD* Gloves
G80 and G20 Chemical Selection Guide

Test Chemical	CAS number	JACKSON SAFETY* G80 Gauntlet		JACKSON SAFETY* G80 Gloves		JACKSON SAFETY* G20 Gloves	
		Permeation break through time (min)	CE Rating (EN374-3:2003)	Permeation break through time (min)	CE Rating (EN374-3:2003)	Permeation break through time (min)	CE Rating (EN374-3:2003)
1,1,1-trichloroethane	71-56-6	>30	2				
1,1,2,2, tetrachloroethane	79-34-5	>30	2				
Acetic acid, glacial	64-19-7	>120	4	>60	3		0
Acetic acid, 10%	64-19-7					>480	6
Acetic acid, 25%	64-19-7	>480	6				0
Acetone	67-64-1		0		0		0
Acetonitrile, 5%	75-05-8					>60	3
Acetonitrile	75-05-8		0	>10	1		
Ammonium hydroxide, 20%	1336-21-6			>240	5		0
Butanol	71-36-3	> 480	6	> 480	6		0
Butyl acetate	123-86-4	>30	2	>30	2		
Butyl cellosolve	111-76-2	>480	6	> 480	6		
Carbon disulphide	75-15-0	>10	1	>10	1		
Chlorine (gas), 100%	7782-50-5			> 480	6		
Citric Acid Monohydrate, 30%	5949-29-1					>120	4
Cyclohexane, 99.9%	110-82-7	>480	6	> 480	6	>10	1
Cyclohexanol	108-93-0	>480	6	> 480	6		
Cyclohexanone	108-94-1	>60	3				
Diacetone alcohol	123-42-2	>120	4				
Dibutyl phthalate	83-74-2	>480	6				
Dichloromethane	75-09-2		0		0		
Diethyleamine	109-89-7	>10	1				
Diethylene glycol	111-46-6			> 480	6		
Di-isobutyl ketone				>240	5		
Dimethyl acetamide	127-19-5	>30	2	>10	1		
Dimethyl formamide	68-12-2						0
Dimethyl sulphoxide				>30	2	>10	1
Ethanol, absolute	64-17-5	>480	6				0
Ethanol, 95%	64-17-5			>240	5		0
Ethanol, 70%	64-17-5					>10	1
Ethidium Bromide, 1%	1239-45-8					>480	6
Ethyl acetate	141-78-6	>10	1	>10	1		
Ethyl ether	60-29-7	>10	1	>30	2		
Ethyl glycol,100%	107-21-1			> 480	6		
Ethyl glycol Ether	110-80-5	>240	5				
Ethyl lactate	687-48-8	>480	6				
Ethylene glycol	107-21-1	>480	6				
Formaldehyde, 37%	50-00-0			> 480	6	>480	6
Gasoline, white		>480	6				
Glutaraldehyde, 50%	111-30-8					>480	6
Heptane, 99%	142-82-5	>480	6	> 480	6		
Hexane	110-54-3	>480	6	> 480	6		0
Hydrazene monohydrate	7803-57-8			> 480	6		
Hydrazene monohydrate, 55%	7803-57-8					>480	6
Hydrazine 60%	302-01-2	>480	6				
Hydrochloric acid, 5%	7647-01-0					>480	6
Hydrochloric acid, 32%	7647-01-0					>120	4
Hydrochloric acid, 37%	7647-01-0			> 480	6	>30	2
Hydrochloric acid	7647-01-0	>480	6				
Hydrofluoric acid, 40%	7664-39-3			>120	4		
Hydrogen peroxide, 30%	7722-84-1			> 480	6	>10	1
Iron (III) Chloride, 40%	7705-08-0					>480	6
Isopropanol, 99.5%	67-63-0	>480	6	> 480	6	>10	1
Kerosene	8008-20-6			> 480	6	>10	1
Lactic acid 85%	598-82-3	>480	6	> 480	6		
Lauric acid 36% in ethanol	143-07-7	>120	4				
Maleic acid, saturated	110-16-7	>480	6				
Methanol	67-56-1	>30	2	>60	3		0
1 - methoxy - 2 - propanol, 55%	107-98-2					>60	3
Methyl ethyl ketone	78-93-3	>10	1		0		
Methyl methacrylate, 99%	80-62-6			>10	1		
Methyl propyl ketone	107-87-9	>10	1	>10	1		
Methyl tert-butyl ether, 99%	1634-04-4			>240	5		
Mineral Oil	8012-95-1					>60	3
Mineral Spirits	64475-85-0						0
Monoethanolamine	141-43-5	>480	6				
Muriatic acid	7647-01-0	>480	6				
Naptha solvent				>240	5		
Nitric acid, 40%	7697-37-2	>480	6	> 480	6		
Nitric acid, 50%	7697-37-2					>10	1
Octyl alcohol	111-87-5	>480	6	> 480	6		
ortho-Phosphoric acid	7664-38-2	>480	6				
Perchloric acid	7601-90-3	>480	6	> 480	6		
Petroleum ether	8032-32-4			> 480	6		
Petrol unleaded				> 480	6		
Potassium hydroxide, 50%	1310-58-3	>480	6	> 480	6		
Propanol	67-63-0	>480	6				
Propyl acetate	109-60-4	>60	3	>10	1		
Pyridine	110-86-1	>10	1				
Sodium hydroxide, 40%	1310-73-2			> 480	6	>480	6
Sodium hydroxide, 50%	1310-73-2	>480	6			>480	6
Sodium hypochlorite, 13%	7681-52-9	>480	6	> 480	6	>480	6
Sodium silicate	6834-92-0	>480	6				
Sulphuric acid, 50%	7664-93-9	>480	6			>480	6
Sulphuric acid, 96%	7664-93-9	>120	4	>120	4		0
Tetrachloroethylene, 100%	127-18-4			>240	5		
Tetrahydrofuran, 100%	109-99-9				0		
Thinner		>10	1				
Tributyl - phosphate	126-73-8					>10	1
Toluene	108-88-3	>30	2	>10	1		
Triethanolamine	102-71-6	>480	6				
Turpentine	8006-64-2	>480	6	> 480	6		0
White spirit	64742-48-9	>480	6				
White spirit	68551-17-7	>480	6				
White spirit	8052-40-13	>480	6	> 480	6		
Xylene (mixture of isomers)	1330-20-7	>60	3	>30	2		

When tested for chemical permeation, product performance is classified in terms of breakthrough time

Measured breakthrough time (min)	Permeation performance level
> 10	1
> 30	2
> 60	3
> 120	4
> 240	5
> 480	6

Analysis has been carried out under laboratory conditions and should only be considered as a guide for use. Chemical performance quoted may not be representative of workplace duration of protection due to the other factors that may affect performance (abrasion, temperature, degradation etc.).

This information is not intended to replace a hazard analysis and risk assessment by a safety professional or professional judgment in the selection of Personal Protective Equipment (PPE). It is the responsibility of the user to assess the type of hazards and risks associated with exposure and then decide on the appropriate PPE for each circumstance.

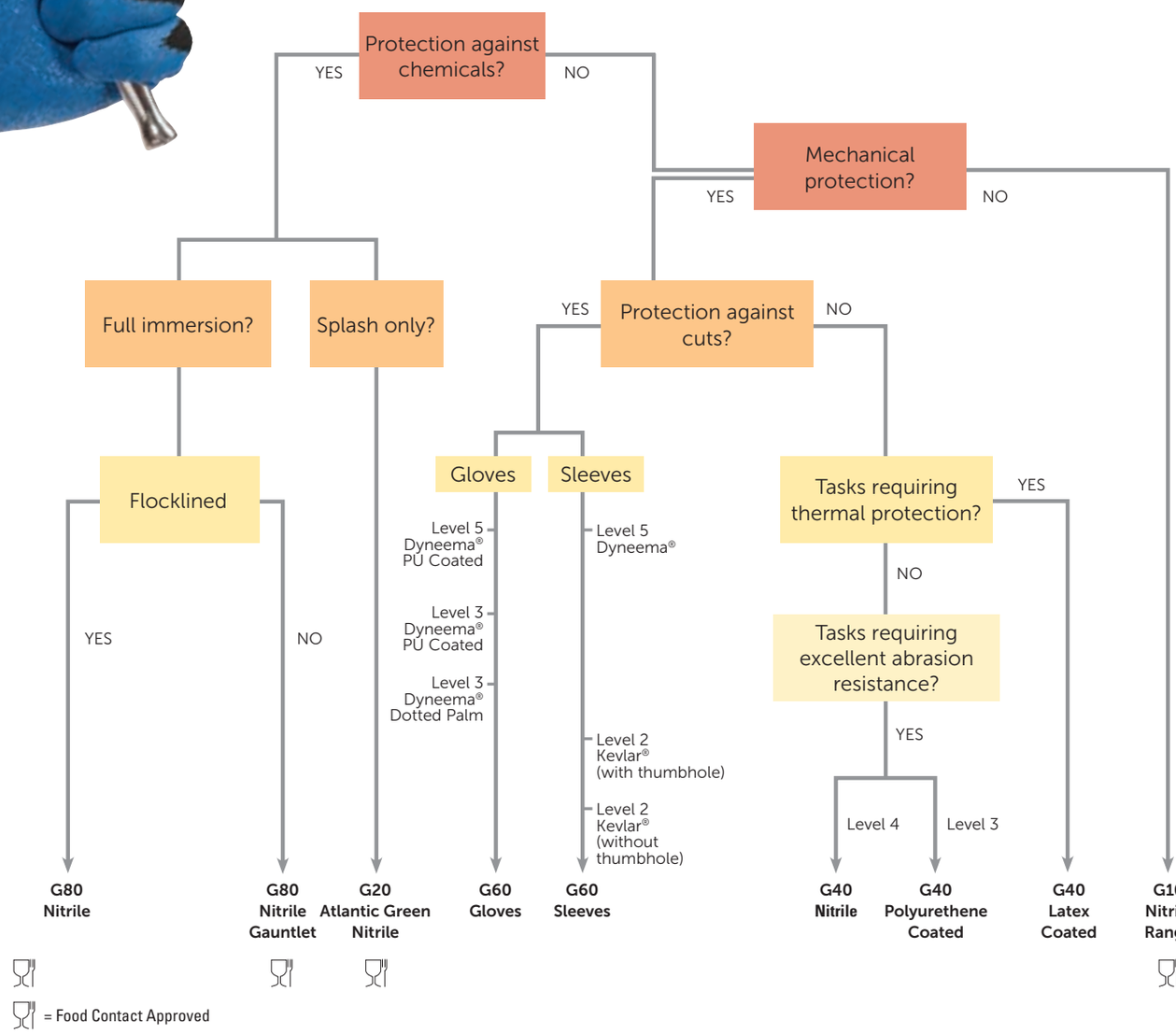
The data in this guide is correct as at the date of print. The data is subject to change as additional knowledge and experience is gained. To view any supplements or updates please visit **www.kcprofessional.com**

JACKSON SAFETY*/KLEENGUARD* Gloves
Product selector

Excellent dexterity for improved productivity

A comprehensive range of gloves providing the most appropriate hand protection to meet your needs.

Selecting the right glove
To increase productivity and cost-effectiveness, workers must be able to work efficiently, comfortably and safely, protecting their hands against a broad spectrum of possible hazards. Use the glove selector in order to determine the right glove for the right task.



The selector is a guide only. It is the responsibility of the employer to make sure the glove is suitable for its intended use. We suggest that you always check the latest version of KIMBERLY-CLARK PROFESSIONAL* product literature to get more information about the products or visit : www.kcprofessional.com

JACKSON SAFETY*/KLEENGUARD* Gloves
G80 Chemical Protection Gloves

All products on this page are suitable for:
- Chemical handling[1]
- Manufacturing
- Transport
- Construction
- Agriculture
- Contract cleaning
- Janitorial and public service

Chemical Guide

Pages 41

All gloves on this page:
- Are available in various sizes
- Offer ergonomic design to provide maximum comfort and minimise hand fatigue
- Offer protection against a broad range of chemicals [1]
- PPE Category III (CE Complex) product classified by EC Council Directive 89/686/EEC

CE 0120

EN 374-3:2003 AJK

EN 388:2003 4101

EN 374-2:2003 Level 3

G80 Chemical Resistant Gloves
Nitrile

Chemical protection against:
- **Oils**
- **Greases**
- **Acids**
- **Caustics**
- **Solvents**

- Nitrile formulation offering excellent chemical resistance and durability
- Contains no natural rubber latex, reducing the potential for Type 1 glove associated reactions
- Flock lined for extra comfort and easy donning
- Resistant to many common chemicals, including oils and solvents [1]
- AQL 0.65 for pinholes
- High abrasion resistance

CE 0120

EN 374-3:2003 AJK

EN 388:2003 4101

EN 374-2:2003 Level 3

Nitrile Gauntlet

Chemical protection against:
- **Oils**
- **Greases**
- **Acids**
- **Caustics**
- **Solvents**

- 0.55 mm thickness
- Longer length (compared to our G80 Nitrile Glove) to protect wrist and lower forearm (46 cm)
- Unlined reducing the risk of lint contamination
- AQL 0.65 for pinholes

Description	Size/Code	7	8	9	10	11	Case Contents	PPE Classification	EN 388	EN 374-3
G80 Nitrile		94445	94446	94447	94448	94449	5 x x 12 = 60 pairs	CAT III	4101	AJK
G80 Nitrile Gauntlet		-	25622	25623	25624	25625	1 x x 12 = 12 pairs	CAT III	4101	AJK

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

JACKSON SAFETY* Gloves
G60 Cut Resistant Gloves

These gloves are suitable for:
- Metal fabrication
- Glass handling
- Handling sharp objects
- Automotive assembly

These gloves are:
- Available in five sizes with colour coded cuffs

These gloves have:
- PPE Category II (CE Intermediate) product classified by EC Council Directive 89/686/EEC
- Long lasting- cost effective

CE

G60 Cut Resistant Glove
Level 5 Cut Resistant Glove with **Dyneema®** Fiber

- PU Coating offers excellent grip
- Engineered patented yarn with steel and **Dyneema®** provides superior protection against cuts and gashes
- High breathability as yarn transmits heat away
- High cut resistance (Level 5)
- Conforms to EN420 Minimum Cuff Length providing protection to wrist area
- High abrasion resistance (Level 4)
- Latex free
- Suitable for washing

CE

Level 3 PURPLE NITRILE* Cut Resistant Glove with **Dyneema®** Fiber

- Nitrile dots on palm offer excellent grip
- **Dyneema®** yarn provides excellent protection against cuts and gashes
- Conforms to EN420 Minimum Cuff Length providing protection to wrist area
- Unique Nitrile coated fingertips – grip with maximum breathability
- High abrasion resistance (Level 4)
- Latex free
- Suitable for washing

CE

Level 3 Cut Resistant Glove with **Dyneema®** Fiber

- PU Coating offers excellent grip
- **Dyneema®** yarn provides excellent protection against cuts and gashes
- Excellent dexterity
- High breathability as yarn transmits heat away
- High cut resistance (Level 3)
- Conforms to EN420 Minimum Cuff Length providing protection to wrist area
- High abrasion resistance (Level 4)
- Latex free

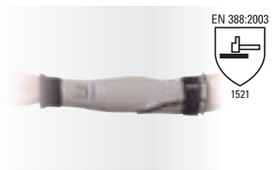
Description	Size/Code	7	8	9	10	11	Case Contents	PPE Classification	EN 388	EN 407
	Colour Coding	●	●	●	●	●				
Level 5 Cut Resistant Glove with **Dyneema®** Fiber		98235	98236	98237	98238	98239	1 x ▯ x 12 🧤 = 12 pairs	CAT II	4542	
Level 3 PURPLE NITRILE* Cut Resistant Glove with **Dyneema®** Fiber		97430	97431	97432	97433	97434	1 x ▯ x 12 🧤 = 12 pairs	CAT II	4340	
Level 3 Cut Resistant Glove with **Dyneema®** Fiber		13823	13824	13825	13826	13827	1 x ▯ x 12 🧤 = 12 pairs	CAT II	4342	

Dyneema® is a registered trademark of Royal DSM N.V

JACKSON SAFETY* Sleeves
G60 Sleeves

All the sleeves on this page are suitable for:
- Metal fabrication
- Glass handling
- Handling sharp objects
- Automotive assembly

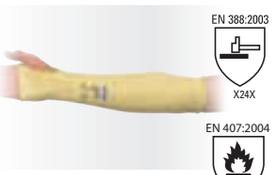
These sleeves are perfect for:
- Applications where workers are involved in material handling
- Assembly work involving sharp objects metal shavings, glass and metal parts



CE

G60 Cut Resistant Sleeves
Level 5 Cut Resistant Sleeve with **Dyneema®** Fiber

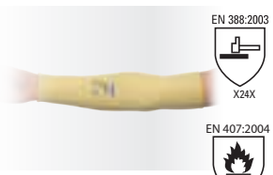
- **Dyneema®** yarn provides excellent protection against cuts and gashes
- High breathability as yarn transmits heat away
- High cut resistance (Level 5)
- Connectivity to glove to protect vulnerable wrist area
- Fully adjustable (to fit different size arms) retain sleeve in position
- Suitable for washing



CE

Level 2 Cut Resistant Sleeves **with Thumbhole**

- **Kevlar®** Blend liner provides excellent lightweight cutprotection (Level 2)
- Inner cotton liner for extra comfort
- Contact heat protection (Level 1)
- 45.7cm (18") cuff
- Good breathability



CE

Level 2 Cut Resistant Sleeves **without Thumbhole**

- **Kevlar®** Blend liner provides excellent lightweight cut protection (Level 2)
- Inner cotton liner for extra comfort
- Contact heat protection (Level 1)
- 45.7cm (18") cuff
- Good breathability

Look for the "with **Dyneema®**" diamond on cut-resistant gloves. Behind this small detail are many promises.

- **Made with genuine Dyneema®.** You'll know that the gloves are made with real **Dyneema®**, the world's strongest fiber™, for maximum protection.
- **Cool and lightweight.** Because they don't retain heat, these lightweight gloves keep hands cool and dry. It's like wearing no gloves at all. You will wear them for longer periods, reducing the chance of injuries.
- **Protects your bottom line.** These gloves are durable, resist abrasion and can be washed over and over. This increases their lifetime and reduces replacement costs.
- **A reliable partner.** You can be assured that DSM not only supplies the **Dyneema®** fiber, but also has provided technical expertise.
- **Quality you can trust.** Before a glove can display the "with **Dyneema®**" diamond, a prototype must pass the strictest testing criteria.
- **Accept no substitutes.** Specify gloves that have the "with **Dyneema®**" diamond to protect your employees…and your business.

Dyneema®
With you when it matters

Description	Code	Case Contents	PPE Classification	EN388
Level 5 Cut Resistant Sleeve with **Dyneema®** Fiber	90075	2 × × 12 = 12 pairs	CAT II	1521
Level 2 Cut Resistant Sleeves with Thumbhole	90070	5 × × 12 = 30 pairs	CAT II	X24X
Level 2 Cut Resistant Sleeves without Thumbhole	90071	5 × × 12 = 30 pairs	CAT II	X24X

JACKSON SAFETY*/KLEENGUARD* Gloves
G40 Mechanical Protection Gloves

All gloves on this page are suitable for:
- Manufacturing
- Transport construction
- Public sector service

All gloves on this page are:
- Hand specific for better ergonomics
- Available in five sizes with colour coded cuffs
- PPE Category II (CE Intermediate) product classified by EC Council Directive 89/686/EEC

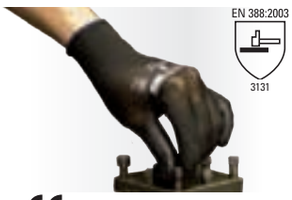
CE

G40 Mechanical Protection Gloves

Nitrile Coated

Premium, general purpose hand protection providing:
- The highest levels of abrasion resistance

- Foam Nitrile Coated palm for excellent dry grip, dexterity and palm protection(1)
- Seamless nylon knitted backing for breathability and comfort
- Better durability with high abrasion resistance



CE

Polyurethane Coated

Versatile, general purpose hand protection

- Excellent grip due to roughened polyurethane coating
- Seamless nylon knitted backing for breathability and comfort
- Good tear and abrasion resistance for durability and reduced cost in use
- Excellent dexterity, ideal for handling small components

CE

Latex Coated

Cost-effective general purpose hand protection

- High tear resistance providing high durability
- Seamless knitted polyester construction offering high breathability for comfort in extended use
- Combines thermal and mechanical protection for handling a wider range of applications
- Crinkled finish latex coated palm provides excellent grip

Description	Size/Code	7	8	9	10	11	Case Contents	PPE Classification	EN 388
	Colour Coding								
G40 Nitrile Coated		40225	40226	40227	40228	40229	5 × × 12 = 60 pairs	CAT II	4131
G40 Smooth Nitrile		-	13833	13834	13835	13836	5 × × 12 = 60 pairs	CAT II	4131
G40 Polyurethane Coated		13837	13838	13839	13840	13841	5 × × 12 = 60 pairs	CAT II	3131
G40 Latex Coated G40 Latex Coated		97270	97271	97272	97273	97274	5 × × 12 = 60 pairs	CAT II	2142

(1) Not intended as primary protection against liquid chemicals.

JACKSON SAFETY* / KLEENGUARD* Gloves
G20 Atlantic Green Chemical Resistant Gloves

These gloves are suitable for:
- Chemical handling(1)
- Painting
- Printing
- Agriculture
- Automotive assembly
- Emergency services
- Local Authorities

Chemical Guide

Pages 41

These gloves are:
- Food contact certified
- Powder free
- Latex free
- Ambidextrous
- Compliant with AQL 1.5 for pinholes

EN 374-2:2003

EN 374-2:2003
Level 2

CE
0120

G20 Atlantic Green Nitrile Gloves

Protection against:
- **Chemical splash**

These gloves have:
- Textured finger tips providing excellent grip
- Excellent tactile sensitivity
- Beaded cuff
- 0.06mm thickness (minimum)
- PPE Category III (CE Complex) product classified by EC Council Directive 89/686/EEC
- Maximum touch sensitivity
- Comfort and flexibility

Description	Size/Code	XS	S	M	L	XL	Case Contents			PPE Classification
G20 Atlantic Green		90090	90091	90092	90093	90094	10x	x250 X225	=2500gloves =2250gloves	CAT III

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

KLEENGUARD* Gloves
G10 Nitrile General Purpose Gloves

These gloves are suitable for:
- Automotive
- Warehousing
- Transport
- Cleaning and engineering industries
- Food processing and catering

These gloves are:
- Latex and Powder free
- Ambidextrous

These gloves have:
- Textured fingertips for better grip
- Beaded cuffs for added strength in donning

G10 Blue Nitrile Gloves

Premium gloves offering:
- High level of comfort
- Protection and performance

- 0.16mm thickness
- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC

G10 Arctic Blue Nitrile Gloves

All the benefits of natural rubber latex without the risk of reaction.
Premium gloves offering:
- Maximum touch sensitivity
- Comfort and flexibility

- Exceptional tactile sensitivity making them ideal for intricate assembly work
- 0.06 mm thickness (minimum)
- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC

G10 Grey Nitrile Gloves

Premium gloves offering:
- Tactile sensitivity and a comfortable, latex-like feel without natural rubber latex

- Designed for tasks requiring maximum dexterity.
- Comfortable strong and in environmental friendly packaging
- 0.08 mm thickness
- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC

G10 Flex Blue Nitrile Gloves

Premium gloves offering :
- Economical protection
- Comfort and flexibility

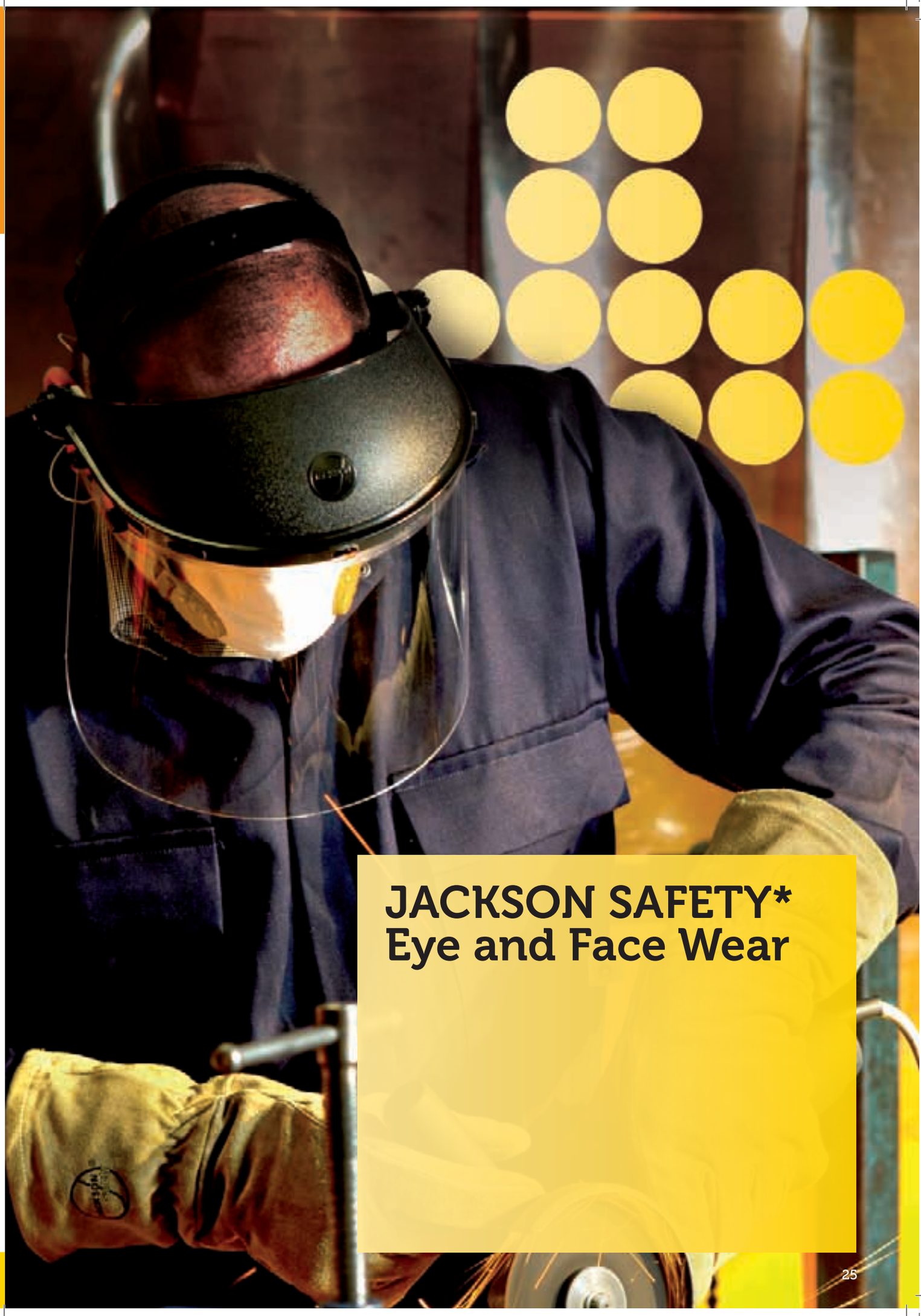
- Ideal for applications requiring repeated food contact
- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC

G10 Flex White Nitrile Gloves

Premium gloves offering :
- Economical protection
- Comfort and flexibility

- Ideal for applications requiring repeated food contact
- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC

Description	Size/Code	XS	S	M	L	XL	Case Contents	PPE Classification
G10 Blue Nitrile		57370	57371	57372	57373		10 × × 100 = 1000 gloves	CAT I
						57374	10 × × 90 = 900 gloves	
G10 Arctic Blue Nitrile		90095	90096	90097	90098		10 × × 200 = 2000 gloves	CAT I
						90099	10 × × 180 = 1800 gloves	
G10 Grey Nitrile		97820	97821	97822	97823		10 × × 150 = 1500 gloves	CAT I
						97824	10 × × 140 = 1400 gloves	
G10 Flex Blue Nitrile Gloves		38518	38519	38520	38521	38522	10 × × 100 = 1000 gloves	CAT I
G10 Flex White Nitrile Gloves		38523	38524	38525	38526	38527	10 × × 100 = 1000 gloves	CAT I



JACKSON SAFETY*
Eye and Face Wear

Eye and Face Wear Legislation
The legal responsibilities

Under European Commission direction, it is the employer's responsibility to assess the need for personal protective equipment in their working environment and, where required, provide the necessary eye and face protection free of charge to the workforce.

Within the European Commission set Personal Protective Directive PPE 89/686/EEC – the standards for Eye and face Protection Products falls under regulation EN166:2001.

All products tested to this standard are measured against various hazards as encountered in industry, laboratories, educational establishments, DIY activities, etc. which are likely to damage the eye or impair vision of the user.

Products relating to EN166 are first split between the following two key measured parts of the standards:

Optical Clarity
This relates to the visual quality of the lens and determines how long a user can feasibly wear the product without experiencing fatigue or reduced quality in vision. This is split into the following levels:
1 – Continuous Use
2 – Intermittent Use
3 – Occasional Use

Impact Protection
This relates to the level of mechanical impact protection that the lens and frame of the product can withstand for the user. This is split into the following levels:
A – High Energy Impact (190 m/s)
B – Medium Energy Impact (120 m/s)
F – Low Energy Impact (45 m/s)

Further Properties
Further optical properties that may be found to be beneficial to the user for operational reasons are marked and explained as appropriate on each eye wear detail.

Ultraviolet rays are a risk
Ultraviolet light rays, the damaging component in sunlight, are classified as UVA and UVB light rays. People are aware that ultraviolet light causes injury to the skin but ultraviolet rays can also cause eye problems. Exposure to bright sunlight can cause conjunctival, corneal, lens and retinal damage in a relatively short time span.

UVA/UVB Protection
99.9% of UVA/UVB protection in accordance with EN166:2001 is provided by JACKSON SAFETY* Eye and Face Protection. This is achieved through a combination of the lenses, the snug fit and the wrap-around design.

Limitations Note:
The selection and use of JACKSON SAFETY* Eye and Face Protection must be based on a hazard assessment of the wearer's work environment by an appropriately trained individual for the employer or organization in accordance with the EN166:2001 standard. The JACKSON SAFETY* Eye Protection range of glasses is not an alternative to goggles or face shields in situations where more extreme impact, dust or chemicals are experienced. They provide limited eye protection and do not protect you from all hazards or hazardous fluids. They are neither unbreakable nor impenetrable. The eye wear must fit securely at all times. Worn over ordinary spectacles they can transmit impacts. Tinted lenses provide protection from sunlight. They are not to be used in welding environments unless specifically stated.

JACKSON SAFETY* Eye Wear
Product selector

A stylish new standard in eye protection that improves personal comfort and safety and ensures optimal worker performance.
- Proven impact resistance
- Highest optical clarity
- Stylings to suit male and female wearers

Selection guide

JACKSON SAFETY*/KLEENGUARD* Eye Protection

Lens Description	JACKSON SAFETY*/KLEENGUARD* Eye Protection Range							
	V60 Nemesis Rx	V50 DTG	V40 HellRaiser	V30 Nemesis	V30 Nemesis VL	V20 Purity	V10 Unispec	V10 Element
Clear Lens – The highest optical clarity – allows maximum visible light transmission. Ideal for indoor applications	(1)	AF	AM	AM	AM			
Smoke Lens – For outdoor use when bright sunlight and glare cause eye strain and fatigue								
Amber Lens – Light gathering properties – provides high visibility and good contrast in low light conditions								
Indoor/Outdoor High Performance Lens – Reduces glare								
Mirrored Lens – Reflects and reduces amount of light and heat that passes through the lens when working outdoors								

(1) Available in the following range of dioptrics: **+1.0, +1.5, +2.0, +2.5, +3.0**
AF = Anti-Fog coating – Offers the highest level of protection meeting the EN 166 N standard
AM = Anti-Mist coating – Reduces condensation on lens and counters the effects of sudden changes in temperature/ humidity

JACKSON SAFETY* Eye Wear
V60 Nemesis Rx, V50 OTG, V40 HellRaiser and V30 Nemesis

All of the eye wear on this page offer:
- Impact resistant polycarbonate lens
- Lightweight wrap-around design for added comfort and coverage
- 99.9% UVA/UVB Protection

V60
Nemesis Rx
- Bifocal style with diopters for vision assistance
- +1.0 to +3.0 diopters available
- Enhanced nose piece design to channel away sweat
- Every pair includes a neck cord
- Meets ANSI Z87.1 : 2010, EN 166 : 2001 standards

V50
OTG (Over the Glass)
- Specially designed for global fit
- Adjustable temples for length and angle
- Anti-fog lens coating
- Meets ANSI Z87.1 : 2010 standards

V40
HellRaiser
- Streamlined, sunglass styling
- Lightweight, flexible design
- Meets ANSI Z87.1 : 2010, EN 166 : 2001

V30
Nemesis
- Sleek, sporty style
- Soft touch temples for added comfort
- Every pair includes a neck cord
- Meets ANSI Z87.1 : 2010, EN 166 : 2001

Range	+1.0	+1.5	+2.0	+2.5	+3.0	Case Contents
V60 Nemesis Rx	28618	28621	28624	28627	28630	1 x x 6 = 6 pairs

Range	Clear A/F	Smoke	Indoor/Outdoor	Amber	Mirror	Case Contents
V50 OTG	48200	–	–	–	–	1 x x 12 = 12 pairs
V40 HellRaiser	28615	25714	25716	–	–	1 x x 12 = 12 pairs
V30 Nemesis	20379	–	–	25673	20380	1 x x 12 = 12 pairs

JACKSON SAFETY* Eye Wear
V30 Nemesis VL, V20 Purity, V10 Unispec and V10 Element

All of the eye wear on this page offer:
- Impact resistant polycarbonate lens that meets European standard EN166 1F
- Lightweight wrap-around design for added comfort and coverage
- 99.9% UVA/UVB Protection

V30
Nemesis VL
- Frameless ultra-lightweight design
- No-brow design increases upward and peripheral vision
- Slip-stop temples reduce slipping
- Compact profile accommodates smaller faces
- Includes free neck cord
- Meets ANSI Z87.1 : 2010, EN 166 : 2001 standards

V20
Purity
- The new look in lightweight, protective eye wear
- Wrap-around lens for better eye protection
- Comfortable, padded temples
- Meets ANSI Z87.1 : 2010, EN 166 : 2001

V10
Unispec
- Low-cost wrap-around protection with a one-piece polycarbonate lens and uncoated frame
- Fits over most prescription eye wear
- Side shields provide added protection
- Meets ANSI Z87.1 : 2010, EN 166 : 2001

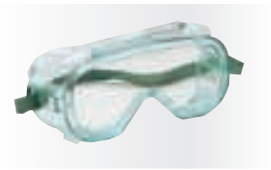
Element
- Lightweight popular styling with an economical price
- Universal nose bridge for comfort
- Completely Dielectric
- Meets ANSI Z87.1 : 2010, EN 166 : 2001

Range	Clear	Smoke	Indoor/Outdoor	Mirror	Case Contents
V30 Nemesis VL	29111 (1)	25704	25697	–	1 × x 12 = 12 pairs
V20 Purity	25654 (1)	–	–	–	1 × x 12 = 12 pairs
V10 Unispec	16727	–	–	–	1 × x 50 = 50 pairs
V10 Element	25642	–	–	–	1 × x 12 = 12 pairs

(1) With Anti-Fog (AF) coating

JACKSON SAFETY* Eye Wear
V80 Splash, V90 Shield Goggle Protection

All Goggles meet ANSI Z87.1 + standards



V80
SG34 Goggles

- Economical splash protection
- Button vents provide indirect vending

MONOGOGGLE* XTR* Goggles

- This stylish goggle protects against splashes, while providing increased visibility due to its cylindrical lens
- A soft, pliable frame conforms to the face for comfort and is easy to clean
- Indirect ventilation
- Can be worn over most prescription eyeglasses

REVOLUTION* Goggles

- CROSS VENT* Technology keeps air flowing in and moisture out
- VISICLEAR* anti-fog and anti-scratch lens coating
- Expanded visual field
- Can be worn over most prescription eyeglasses

WILDCAT* Goggles

- Extreme heat resistance – will not melt, drip or ignite at 3500 F for five minutes
- Adjustable side vents to help increase airflow
- Fits naturally to the contour of your face
- Lightweight and comfortable with a pivot headband that allows for optimal placement

V90
SHIELD* Goggles

- Features the **Monogoggle* XTR* Goggles** with indirect ventilation and a polycarbonate shield for full face protection
- Shield detaches from the goggle
- Curved Face Shield conforms to the shape of face offering added protection
- Can be used over most prescription eyeglasses

Range	Code	Description	Case Contents
V80 SG34 Goggles	16362	Clear Lens, Green Frame	1 x x 200 = 200 pairs
V80 **MONOGOGGLE* XTR* Goggles**	18624	Clear Anti-Fog lens, Blue Frame	1 x x 6 = 6 pairs
	30707	Clear Anti-Fog Replacement Lens	1 x x 12 = 12 pairs
V80 **REVOLUTION* Goggles**	14399	Clear VISICLEAR* Lens, Blue Frame	1 x x 30 = 30 pairs
V80 **WILDCAT* Goggles**	20525	Clear Anti-Fog Lens, Black Frame	1 x x 12 = 12 pairs
V90 **SHIELD* Goggles**	18629	Clear Anti-Fog Lens, Blue Frame	1 x x 6 = 6 pairs

JACKSON SAFETY* Face Protection
F20 Face Shield and Brow Guard

Our face shield and brow guard system:
- Offers impact protection
- Is modular – the brow guard can be re-used with multiple Face Shields and should be ordered separately

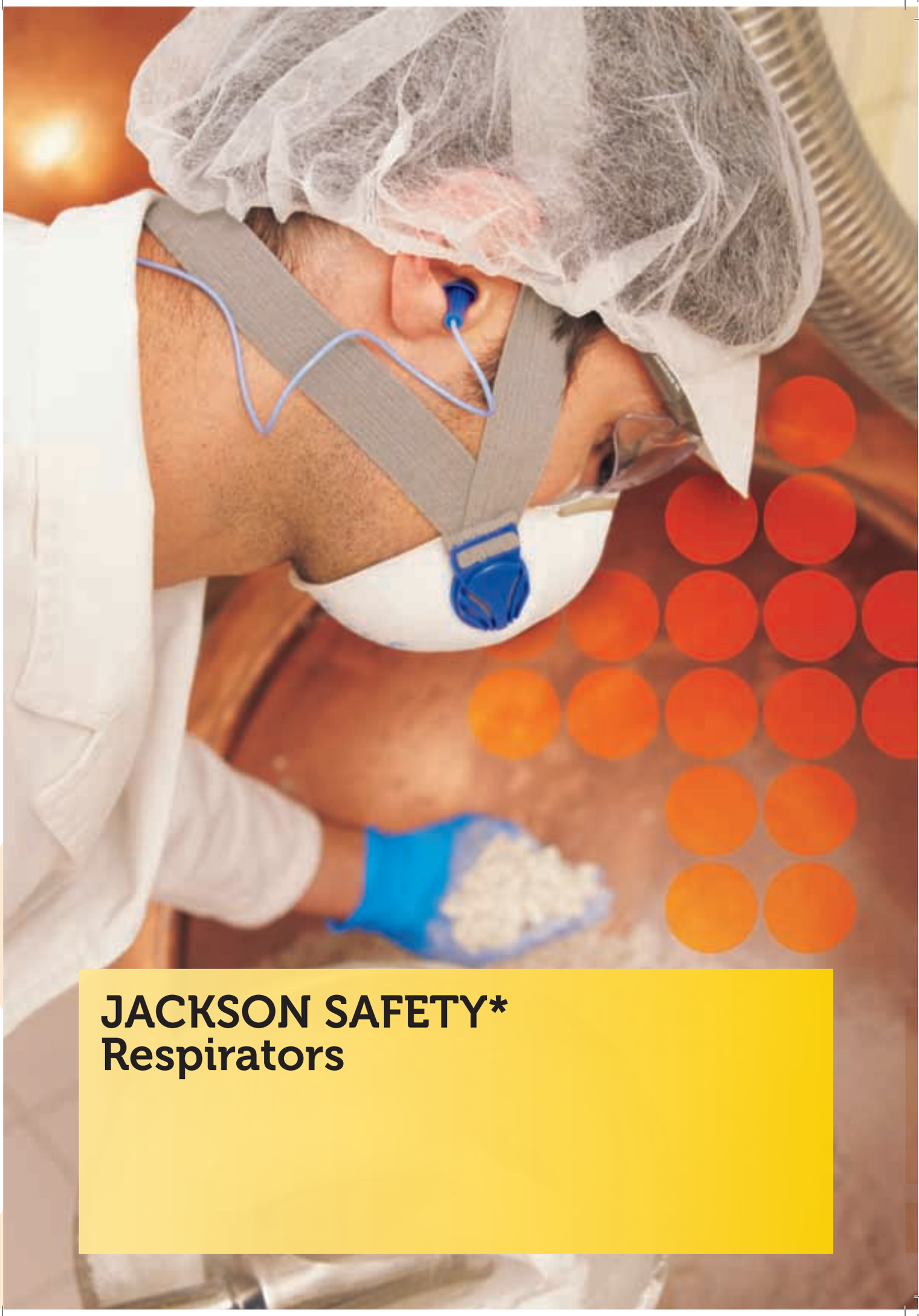
Face Shield
F20 Polycarbonate

- Full face protection against particles and sparks
- Meets EN166 level B for Medium Impact Protection (120 m/s)
- Meets EN166 level 2 for Intermittent Use
- Works in conjunction with JACKSON SAFETY* J-Maxx Brow Guard

Brow Guard
J-Maxx

- Provides protection around the forehead and holds the Face Shield piece in place
- Adjustable over top head strap, to suit user
- Side ratchet adjuster, to suit the comfort of the user
- Easy to use unlocking system for quick removal

Description	Code	Lens	Case Contents
JACKSON SAFETY* F20 Polycarbonate Face Shield	28650	Clear, Unbound	12 × = 1 case
JACKSON SAFETY* J-Maxx Brow Guard	28640	n/a	10 × = 1 case



JACKSON SAFETY*
Respirators

Respirator Legislation

The legal responsibilities

Information based on European EN Standards

Under current EU legislation, employers are responsible for providing suitable respiratory protection to employees who need it and giving proper training in its use. KIMBERLY-CLARK PROFESSIONAL* offers a choice of respiratory protection, expert knowledge and support services to help you stay within the law.

What is a workplace respiratory hazard?
A workplace respiratory hazard is anything that impairs an employee's ability to breathe freely and safely. Such threats might include:

- **Dusts**: Formed when solid matter is broken down into fine, airborne particles
- **Mists**: Tiny liquid droplets, formed by condensation or as the result of processes such as spraying
- **Metal fumes**: Fine, airborne particles from metal that condense after vaporisation at high temperatures
- **Gases**: Often odourless and invisible, can spread freely and quickly through the air
- **Vapours**: Gases formed when solids or liquids evaporate at room temperature

How to choose the right protection?
The right respiratory protection is vital to prevent harmful exposure to particles, gases and vapours. Following these rules will help you make the right choice:

- **Risk**: Identify the hazard – is it dust, mist, metal fume, gas or vapours?
- **Concentration**: Assess the concentration of contaminant; never underestimate.
- **Product selection**: Purchase only legal, CE marked respiratory equipment; if unsure of what you need, ask your KIMBERLY-CLARK PROFESSIONAL* distributor or contact our sales representatives
- **Training**: Set up a training programme so that every user of respiratory equipment is informed about correct fitting, maintenance and storage

How long can a respirator be used?
Disposable respirators protect against airborne particulates. They are constructed largely from the filtermedia itself and cover the nose, mouth and chin. They should be disposed of at the end of each shift (8 hours maximum) or sooner if they become heavily contaminated.

Selected models within the JACKSON SAFETY* Range of particulate respirators offer longer protection and filtration performance when used in dusty environments and/or the possibility of being reused at the end of the 8 hour shift. These are identified with the letter D to reflect compliance with the EN 149: 2001 + A1: 2009 clogging test and the letter R (after the filtration performance level) to indicate reusability (NR indicates the respirator is non-reusable).

CE 0194

All KIMBERLY-CLARK PROFESSIONAL* disposable respirators meet the European Standard for respiratory equipment EN 149: 2001 + A1: 2009 and carry the CE mark.

Respirators legislation
The legal responsibilities
Information based on American NIOSH Standards

Selecting the right respirator

- Respirators from KIMBERLY-CLARK PROFESSIONAL* are classified by NIOSH as Disposable Particulate Respirators
- How to choose from N, R or P series?
  Selection of N, P or R series is based on the presence or absence of oily particles with the NIOSH classifications as follows:
- N – Not resistant to oil
- R – Resistant to oil
- P – oil Proof

- Which filtering efficiency to choose?
  NIOSH classify Disposable Particulate Respirators as 95%, 99% or 99.97% filter efficiency

No oily particles - use N, R or P

Oily particles e.g. cutting fluids, glycerine etc. – use R or P only
Oily particles & required for more than 1 shift – use only P

NIOSH respirators:

Respirator	Filter efficiency (%)	Test agent (at 85 litres per minute)	Type of contaminant	Time of use
N series				
N100	99.7	NaCl	Solid & water based particulates i.e. non-oil aerosols	Non-specific (limited by considerations of hygiene, damage, and breathing resistance)
N99	99			
N95	95			
R series				
R100	99.7	DOP oil	Any	One work shift or 8 hours
R99	99			
R95	95			
P series				
P100	99.7	DOP oil	Any	Non-specific but not to be used more than 40 hours or 30 days and limited by considerations of hygiene, damage, and breathing resistance
P99	99			
P95	95			

Comparison of respirator filtration requirements:

Particle filtration (%)	US NIOSH Flow rate of 85 litres per minute with NaCl	US NIOSH Flow rate of 85 litres per minute with DOP (for R & P series)	EN149 Flow rate of 95 litres per minute with NaCl & mineral oil	Australia AS/NZS Flow rate of 95 litres per minute with NaCl
>80%			FFP1	P1
>94%			FFP2	P2
>95%	N95	R95, P95		
>99%	N99	R99, P99	FFP3	
>99.95%				P3
99.97%	N100	R100, P100		

Respirators
Frequently asked questions
Information only applicable to European EN Standards

What does FFP stand for?
Filtering Face Piece (= disposable maintenance-free respirator)
Information only applicable fo European EN standards

What is the difference between an FFP1, FFP2 and FFP3 respirator?
This classification is related to filtration performance levels as defined per EN 149: 2001 + A1: 2009:

- FFP1 filters out 80% of solid and liquid particles during test procedure
- FFP2 filters out 94% of solid and liquid particles during test procedure
- FFP3 filters out 99% of solid and liquid particles during test procedure

What is the nominal protection factor?
Calculated on the basis of Total Inward Leakage (TIL), this number is indicating the protection level of the respirator under laboratory conditions. A nominal protection factor of 50 means that the pollution inside the respirator is 50 times lower than the pollution outside the respirator.

- P1 respirators have a nominal protection factor of 4
- P2 respirators have a nominal protection factor of 12
- P3 respirators have a nominal protection factor of 50

What is the "Dolomite Test"?
The Dolomite Test is an optional test under norms EN 149: 2001 + A1: 2009. The test consists of subjecting the respirator to a breathing simulation in a controlled environment with a known high concentration of dolomite dust in the air. This will ensure that breathing resistance and filter penetration are not substantially affected from the use of the respirator in a dusty environment for the whole 8 hour shift.

What is the 120mg loading test?
Additional test required to meet EN 149: 2001 + A1: 2009. This is testing how respirators perform under heavy particle load.

What is the filtermedia made of?
Our JACKSON SAFETY* Respirators use different layered filtermedia: meltblown, spunbond, highly bonded and lightly carded webs.

Why is carbon added?
By adding a layer of activated charcoal to the filter, organic vapours below Occupational Exposure Level (OEL) can be filtered out of the inhaled air. Carbon has a very large surface area due to its porous structure, which gives plenty of space to trap nuisance odours passing through this layer.

What does "electrostatic filtermedia" mean and how does it work?
One filtermedia layer of our respirators is electrostatically charged. Due to this charge, fine particles are attracted to the filtermedia and trapped in it. This layer is effectively filtering out fine particles.

How does the exhalation valve work?
Valves have a rubber membrane which closes when inhaling and opens when exhaling. They enable hot and humid exhaled air to be pushed out of the breathing zone in order to keep the face cooler. They also help to reduce breathing resistance; which is particularly important for FFP3 respirators, as they have a thicker filtermedia.

Why are some products marked as "reusable"?
Some respirators are marked with the letter R (after the filtration performance level) as part of the CE marking to indicate that they have successfully met the additional requirements within EN 149: 2001 + A1: 2009 to be reused at the end of a shift provided that they are kept in the original packaging and away from the contaminated area until worn again. Reusability requires the on-going assessment of the condition of the respirator to determine the moment when it has to be finally disposed and replaced.

Why select a comfort strap respirator?
Two thirds of users prefer JACKSON SAFETY* Particulate Respirators with Comfort Strap over the European market leader's equivalent product.[1]

(1) Based on end user comparative studies conducted on FFP2 particulate respirators in February-March 2008

JACKSON SAFETY* Respirators
R20 – R10 Moulded Comfort Strap range

All respirators on this page are:
- Moulded respirators
- Latex free: can help prevent allergic reactions

All respirators on this page offer:
- Soft nose foam with cloth layer designed to improve comfort and reduce fogging on safety eye protection
- Convex shape, nose clip and elastic head strap to provide an excellent fit for a variety of different face shapes

R20 P95 OV Particulate Respirator with Comfort Straps and Dual Valves
Dual Valved

Protection against:
- **Fine dusts**
- **Water and oil based mists**
- **Metal fumes**
- **Organic vapours**

- Effective against all oil based and non-oil based particulate aerosols and dust that do not emit harmful vapors
- Carbon layer reduces exposure to nuisance levels of organic vapors
- Wide, comfortable user-preferred head straps
- Adjustable head straps

R20 P95 Particulate Respirator
Valved

Protection against:
- **Fine dusts**
- **Water and oil based mists**
- **Metal fumes**

- Colour-coded yellow for easy distinction of performance level
- Exhalation valve designed for heat and moisture reduction to provide enhanced comfort
- NIOSH P95 approved. Recommended for more than 8 hours of use

R10 N95 / FFP1 NR Particulate Respirator
Dual Valved

Protection against:
- **Fine dusts**
- **Water and oil based mists**

- Dual Valves designed to maximise warm and humid airflow away from the face and help reduce fogging on eye wear
- Colour-coded blue for easy distinction of performance level (N95/FFP1)
- NIOSH N95 and EN FFP1 approved
- Comfort straps

Unvalved

Protection against:
- **Fine dusts**
- **Water and oil based mists**

- Colour-coded blue for easy distinction of performance level (N95/FFP1)
- NIOSH N95 and EN FFP1 approved
- Comfort straps

Unvalved

Protection against:
- **Fine dusts**
- **Water and oil based mists**

- Colour-coded for easy distinction of performance level (N95/FFP1)
- NIOSH N95 and EN FFP1 approved

Description	Code	Color Coding	Case Contents
R20 P95 OV Particulate Respirator with Comfort Straps and Dual Valves	64560		8 x x 10 = 80
R20 P95 Particulate Respirator	64420		8 x x 10 = 80
R10 N95 / FFP1 NR Respirator Dual Valved with comfort strap	64260		8 x x 10 = 80
R10 N95 / FFP1 NR Respirator Unvalved with comfort strap	64250		8 x x 20 = 160
R10 N95 / FFP1 Respirator Unvalved	64230		8 x x 20 = 160

JACKSON SAFETY*
Hearing Protection

Hearing Protection
The legal responsibilities and product selector

KIMBERLY-CLARK PROFESSIONAL* Hearing Protection offers a wide choice of innovative and traditional hearing protection products, designed to offer users maximum comfort and encourage conformity.

Why is Hearing Protection important?
Continued exposure to noise above certain levels causes permanent hearing damage. Hearing cells cannot be repaired nor do they regenerate.

How is noise measured?
The decibel scale is used in acoustics to quantify sound levels. The reference level (0dB) is set at the threshold of human perception.

When does it become a problem?
Workers are exposed to noise levels at different frequencies that may vary depending on the type of industry and activities performed. Noise levels above 80dB will start causing progressive hearing damage as the noise intensity and exposure increase.

Choosing the correct Hearing Protection Devices (HPD)
For countries that follow US standard ANSI S3.19-1974
The US standard is based on a number rating known as NRR (Noise Reduction Rating), these numbers range from zero to 33.

US OSHA legislation requires that employers must provide a hearing protection programme where noise exceeds 85dB.

The level of noise entering a person's ear, when hearing protection is used as directed, is closely approximated by the difference between the weighted environmental noise level and the NRR;
- Environmental noise measured at the ear at 92 dBA
- NRR is 31 dB
- Therefore the level of noise entering the ear is approximately equal to 61 dBA

For countries that follow EU standard EN 352-2
European standards require that hearing protection equipment is tested to determine the levels of protection each product offers. These protection levels are called Single Number Ratings (SNRs) – look out for them in the product descriptions.
Following a risk assessment, the HPD selection would require that the environmental noise level and the desired final noise levels, at the end organ of hearing, are subtracted to determine the requested SNR. This would achieve an adjusted desired noise level of between 75dB and 80dB. A final adjusted level below 70dB is considered to be over-protection.

For countries that follow AS/NZS 1270:2002
The Australian / New Zealand standard is based on a single number rating known as SLC80 (sound level conversion) which is used to compare the acoustic performance of hearing protection products. The number 80 indicates that in a well-managed hearing protection programme the protection provided is expected to equal or exceed the SLC80 figure in 80% of the users.

Under Australian workplace legislation and detailed in AS/NZS 1269.3:2005 – Occupational Noise Management, employers must provide a hearing protection programme where noise exceeds 85dB.

AS/NZS 1270:2002 details 5 classes of Hearing protector based on the attenuation or reduction in the level of noise;

Class	Specified SLC_{80} ,dB
1	10 – 13
2	14 – 17
3	18 – 21
4	22 – 25
5	26 or more

For instance where a hearing protector has been tested to AS/NZS 1270 and rated as Class 4, if selected, used and maintained as specified in AS/NZS 1269, the protector may be used in noise up to 105dB(A) assuming an 85 dB(A) criterion. A lower criterion may require a higher protector class.

AS/NZS 1269.3:2005 – Occupational Noise Management details the class of hearing protectors to be used in certain noise environments;

dB level (where 85dB selected)	Class
Less than 90	1
90 to less than 95	2
95 to less than 100	3
100 to less than 105	4
105 to less than 110	5
Greater than or equal to 110	Seek specialist advice

Product Selector Guide

Description	SNR	Multiple-use	Comfort	Soft Foam	Easy to Fit	Innovative Design	Patent Pending	Replacement Part	Metal Detectable Version Available
 JACKSON SAFETY* H50 Multiple-use Ear Clips	23	✓	✓✓✓✓	✓✓	✓✓	✓✓✓	✓	67237	✗
 JACKSON SAFETY* H30 Multiple-use Comfortflex Earplugs	28	✓	✓✓✓	✓✓	✓✓	✓✓	✓	✗	✗
 JACKSON SAFETY* H20 Earplugs	25	✓	✓✓	✓	✓	✓	✓	✗	✓
 JACKSON SAFETY* H10 Disposable Earplugs	31	✗	✓✓	✓	Requires Rolling Down	✓	✓	✗	✓

JACKSON SAFETY* Hearing Protection
H50 – H30 Hearing Protection

All products on this page are:
- Free from latex, silicon, PVC and phthalates

All products on this page offer:
- High visibility for easy compliance monitoring

H50 Multiple-use Hearing Protection
Ear Clips

Patented clip-on design:
- Designed to be easily inserted and removed
- Designed to ensure long wearing comfort
- Lightweight clips stay securely in place
- Designed not to interfere with other PPE
- Designed to be used with JACKSON SAFETY* H50 Replacement Pads

User friendly:
- Soft foam uniquely shaped to conform to the ear canal opening
- Easy hygienic insertion and removal, minimises hand to foam contamination
- Each pair complete with individual carry case
- Corded and uncorded options available
- Reusable, helps to reduce cost in use

Replacement Pads

- Replaceable pad system to be used in conjunction with the JACKSON SAFETY* H50 Hearing Protection

User friendly:
- One clip can last numerous replacement pads
- Slotted one way system that avoids errors in fitting
- Reusable, helps to reduce cost in use

H30 Multiple-use Hearing Protection
ComfortFlex Earplugs

Unique tapered design(1):
- Quick and comfortable custom fit
- Eliminates need to roll down foam
- Provides instant protection upon proper insertion – no need to wait for foam to expand

User friendly:
- Flexible handle and soft exterior work together to provide more comfort to the user
- Easy hygienic insertion and removal, minimises hand to foam contamination
- Each pair complete with individual carry case
- Corded and uncorded options available
- Reusable, helps to reduce cost in use

Description	Code	Case Contents		NRR	SNR	SLC (80)
H50 Uncorded	67235	8 x	x 10 pair cartons = 80 pairs	20	23	20
H50 Corded	67236	8 x	x 10 pair cartons = 80 pairs	20	23	20
H50 Replacements	67237	4 x	x 50 pair cartons = 200 pairs	N/A (Only applies when used with 67235/6)		
H30 Uncorded	67225	4 x	x 50 pair cartons = 200 pairs	25	28	22
H30 Corded	67226	4 x	x 50 pair cartons = 200 pairs	25	28	22

(1) Patent pending

JACKSON SAFETY* Hearing Protection
H20 – H10 Hearing Protection

All products on this page offer:
- Free from latex, silicone and phthalates
- Available in wall mountable dispenser box

H20 Hearing Protection
Reusable Earplugs
- Traditionally styled offering
- Design ensures easier holding and donning
- High visibility for easy compliance monitoring
- Each pair complete with resealable bag
- Corded and uncorded options available
- Also available in corded Metal Detectable option

H10 Hearing Protection
Disposable Earplugs
- Soft roll-down foam for easy insertion
- High visibility for easy compliance monitoring
- Each pair individually bagged
- Corded and uncorded options available
- Also available in corded Metal Detectable option

H10 Disposable Earplug Bulk Pack and Dispenser
Bulk Pack
- Featuring H10 uncorded disposable foam earplugs
- 500 pairs (or 1000 earplugs) packed in a polybag

Dispenser
- Wall-mountable and desktop-ready
- Easy, flip open for quick refill
- Clear globe helps to indicate when to refill
- Mounting template and hardware included
- Donning instructions attached to front to encourage correct insertion of product

Description	Code	Case Contents	NRR	SNR	SLC (80)
H20 Uncorded	67220	4 x x 100 pair cartons = 400 pairs	26	25	21
H20 Corded	67221	4 x x 100 pair cartons = 400 pairs	26	25	21
H10 Uncorded	67210	8 x x 200 pair cartons = 1600 pairs	31	31	22
H10 Corded	67212	8 x x 100 pair cartons = 800 pairs	31	31	22
H10 Bulk	25708	4 x x 500 pair bags = 2000 pairs	31	31	22
H10 Bulk Dispenser	25709	1 Dispenser/case			

Chemical Legislation
The legal responsibilities

Gloves - EN 374:2003 (Protective Gloves Against Chemicals and Micro-organisms)

When tested according to a water tightness and/or air tightness test, a glove shall not leak when an Acceptable Quality Level (AQL) is applied

Performance level	Acceptable quality level unit	Inspection levels
Level 3	< 0.65	G1
Level 2	< 1.5	G1
Level 1	< 4.0	S4

The Chemical pictogram (shown right) must be accompanied by three digits, referring to a permeation performance level 2 (or higher) achieved against three chemicals from a standard list, represented in Annex A of EN374-1:2003

Code Letter	Chemical	CAS Number	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile compound
D	Dichloromethane	75-09-2	Chlorinated paraffin
E	Carbon disulphide	75-15-0	Sulphur containing organic compound
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofurane	109-99-9	Heterocyclic and ether compound
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-85-5	Saturated hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulphuric acid 96%	7664-93-9	Inorganic mineral acid

The 'Low Chemical Resistant' pictogram is used for gloves that do not achieve level 2 against at least three chemicals from the defined list, yet still comply with the Penetration test.

The 'Micro-organism' pictogram is used when a glove meets at least a performance level 2 for the Penetration test.

Protective clothing - EN ISO 6529:2001 method A (Protective Garments Against Chemicals and Micro-organisms)

The following permeation data has been produced by independent accredited laboratories using the latest test method (currently EN ISO 6529:2001 method A)

The breakthrough time is the time taken for the tested chemical to reach a permeation rate off 1 µg/cm^2.min and 0,1 µg/cm^2. min. at 20°C and environmental pressure.

Gloves and Protective clothing

When tested for chemical permeation, product performance is classified in terms of breakthrough time

Measured breakthrough time (min)	Permeation performance level
> 10	1
> 30	2
> 60	3
> 120	4
> 240	5
> 480	6

Analysis has been carried out under laboratory conditions and should only be considered as a guide for use. Chemical performance quoted may not be representative of workplace duration of protection due to the other factors that may affect performance (abrasion, temperature, degradation etc.).

This information is not intended to replace a hazard analysis and risk assessment by a safety professional or professional judgment in the selection of Personal Protective Equipment (PPE). It is the responsibility of the user to assess the type of hazards and risks associated with exposure and then decide on the appropriate PPE for each circumstance.

The data in this guide is correct as at the date of print. The data is subject to change as additional knowledge and experience is gained. To view any supplements or updates please visit **www.kcprofessional.co.uk/chemicalprotection**

Chemical Protection Guides
Chemical permeation (1)

			EN 374						ISO 6529: 2001			
			JACKSON SAFETY* G80 Nitrile Gloves		JACKSON SAFETY* G80 Nitrile Gauntlet		KLEENGUARD* G20 Atlantic Green Nitrile Gloves		KLEENGUARD* A80 Fabric		KLEENGUARD* A71 Fabric	
Chemical	CAS#	Concentration	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result
1,1,1-trichloroethane	71-55-6	100.0%	1	27	2	44						
1,1,2,2-tetrachloroethane	79-34-5	100.0%	1	14	2	31						
1,2 Dichloroethane	107-06-2	100.0%							Immediate			
1,3-dichloro-2-propanol	96-23-1	100.0%							6	>480		
1,4-Dioxane	123-91-1	100.0%							2	35		
1-pentanol	71-41-0	100.0%							6	>480		
1-phenoxy-2-propanol	770-35-4	100.0%							6	>480		
1-propanol	71-23-8	100.0%							6	>480		
2 Butoxyethanol	111-76-2	100.0%							6	>480		
2 Butoxyethanol	111-76-2	99.4%									4	193
2-acrylamido-2-methylpropane sulfonic acid, sat. sol.	15214-89-8	100.0%							6	>480		
2-Chloroethanol	107-07-3	100.0%							6	>480		
2-Chloroethanol	107-07-3	99.0%									6	>480
2-Ethoxy ethanol	110-85-5	99.0%	4	166								
2-Ethoxy Ethyl acetate	111-15-9	99.0%	3	92								
2-methyl-butan-2-ol	75-85-4	99.0%							6	>480		
2-methyl-cyclohexylamine	6864-37-5	100.0%							6	>480		
2-propenal	107-02-8	100.0%							Immediate			
3-Methylamino 1,2-Propanediol	40137-22-2	100.0%							6	>480		
Acetic Acid	64-19-7	100.0%	3	66	4	160	Immediate		6	>480	6	>480
Acetic Acid	64-19-7	10.0%					6	>480				
Acetic Anhydride	108-24-7	100.0%							6	>480		
Acetone	67-64-1	100.0%	Immediate				Immediate		2	41	Immediate	
Acetonitrile	75-05-08	100.0%			Immediate				1	17	1	14
Acetonitrile	75-05-08	99.9%	1	12								
Acetophenone	98-86-2	100.0%							6	>480		
Acetophenone	98-86-2	98.0%									6	>480
Acrylamide	79-06-1	50.0%							6	>480		
Acrylamide	79-06-1	37.0%										
Acrylic acid	79-10-7	99.0%							6	>480		
Allyl alcohol	107-18-6	100.0%							6	>480		
Aluminium chlorohydrate	1327-41-9	40.0%							6	>480		
Aluminium trisulphate sat. sol.	17927-65-0	100.0%							6	>480		
Ammonium chloride saturated solution	12125-02-9	100.0%							6	>480		
Ammonium hydrogen carbonate (saturated)	1066-33-7	100.0%							6	>480		
Ammonium Hydroxide	1336-21-6	100.0%										
Ammonium Hydroxide	1336-21-6	35.0%										
Ammonium Hydroxide	1336-21-6	25.0%					Immediate				1	10
Ammonium Hydroxide	1336-21-6	20.0%										
Ammonium Hydroxide	1336-21-6	10.0%							3	105	6	>480
Ammonium nitrate sat. sol.	6484-52-2	100.0%									6	>480
Ammonium nitrate sat. sol.	6484-52-2	35.0%							6	>480		
Ammonium Sulphate Solution	7783-20-2	35.0%							6	>480	6	>480
Amyl acetate	628-63-7	100.0%	3	77								
Amyl alcohol	75-85-4	100.0%	6	>480								
Benzaldehyde	100-52-7	99.0%							3	64	2	59
Benzene	71-43-2	100.0%							Immediate			
Bromobenzene	108-86-1	100.0%							Immediate			
Butanol	71-36-3	100.0%	6	>480	6	>480	Immediate					
Butyl acetate	123-86-4	100.0%			2	33						
Butyl acetate	123-86-4	99.0%	2	57					Immediate			
Butyl acrylate	141-32-2	99.0%							1	25		
Butyl amine	109-73-9	100.0%							Immediate			
Butyl cellusolve	111-76-2	100.0%	6	>480	6	>480						
Butyric Anhydride	106-31-0	100.0%							6	>480		
Calcium nitrate	10124-37-5	35.0%							6	>480		
Calcium Sulphate Solution	10101-41-4	35.0%							6	>480		
Carbon disulphide	75-15-0	100.0%			1	22					Immediate	
Carbon disulphide	75-15-0	99.9%	1	12								
Careclean AS1 ✈ (2)			6	>460			6	>480				
Chlorine (gas)	7782-50-5	100.0%										
Chloroacetic acid	79-11-8	50.0%							6	>480		

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com
(2) Aviation branded chemical

Chemical Protection Guides
Chemical permeation (1)

			EN 374						ISO 6529: 2001			
			JACKSON SAFETY* G80 Nitrile Gloves		JACKSON SAFETY* G80 Nitrile Gauntlet		KLEENGUARD* G20 Atlantic Green Nitrile Gloves		KLEENGUARD* A80 Fabric		KLEENGUARD* A71 Fabric	
Chemical	CAS#	Concentration	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result
Chlorobenzene	108-90-70	99.5%									Immediate	
Chlorosulphonic acid	7790-94-5	100.0%							Immediate			
Citric Acid	77-92-9	100.0%							6	>480		
Cumene	98-82-8	98.0%										
Cutting Oil		100.0%										
Cyclohexane	110-82-7	100.0%	6	>480	6	>480						
Cyclohexane	110-82-7	99.9%					>480					
Cyclohexane	110-82-7	99.7%	6	>480								
Cyclohexanol	108-93-0	100.0%										
Cyclohexanol	108-93-0	100.0%	6	>480	6	>480						
Cyclohexanone	108-94-1	100.0%			3	92			3	110		
Cyclohexanone	108-94-1	99.0%					1	28			2	34
Dichloromethane	75-09-2	100.0%			Immediate		Immediate				Immediate	
Dichloromethane	75-09-2	99.8%	Immediate									
Diesel Fuel		100.0%	6	>480			4	148	2	24	Immediate	
Diestone DLS ✈ **(2)**			4	136			Immediate					
Diethanolamine	111-42-2	35.0%									6	>480
Diethylamine	109-89-7	100.0%	1	11	1	22					Immediate	
Diethylamine	109-89-7	99.5%										
Diethylene glycol	111-46-6	100.0%							6	>480		
Diethylene glycol	111-46-6	99.0%	6	>480								
Diethylether	60-29-7	100.0%							Immediate			
Diethylsulphate	64-67-5	98.0%							6	>480		
Di-isobutyl ketone	108-83-8	100.0%	5	247								
Dimethyl acetamide	127-19-5	100.0%	5	247	2	46						
Dimethyl sulphoxide	67-68-5	100.0%	2	50			1	16				
Dimethylformamide	68-12-2	100.0%									2	54
Dimethylformamide	68-12-2	99.0%										
Dimethylsulphate	77-78-1	100.0%							6	>480		
Ethanol	64-17-5	100.0%			6	>480			1	27	6	>480
Ethanol	64-17-5	98.0%					Immediate					
Ethanol	64-17-5	95.0%	5	380								
Ethanol	64-17-5	70.0%					1	16				
Ethanolamine Solution	141-43-5	35.0%							6	>480		
Ethidium Bromide	1239-45-8	1.0%	6	>480			6	>480				
Ethoxyethane	60-29-7	100.0%							Immediate			
Ethyl acetate	141-78-6	100.0%			1	20					Immediate	
Ethyl acetate	141-78-6	99.7%	1	13								
Ethyl benzene	100-41-4	100.0%							Immediate			
Ethyl ether	60-29-7	100.0%	2	32	1	21						
Ethylene diamine	108-01-0	35.0%							6	>480	6	>480
Ethylene glycol	107-21-1	100.0%			6	>480						
Ethylene glycol	107-21-1	99.9%	6	>480								
Ferric (III) chloride sat. sol.	7705-08-0	100.0%							6	>480		
Formaldehyde	50-00-0	37.0%	6	>480			6	>480				
Formaldehyde	50-00-0	10.0%										
Formic acid	64-18-6	50.0%							6	>480	6	>480
Formic acid	64-18-6	5%									6	>480
Furfural	98-01-1	100.0%							4	154		
Gasoline		100.0%			6	>480						
Glutaraldehyde	111-30-8	50.0%							6	>480		
Glycerin	56-81-5	35.0%							6	>480		
Heptane	142-82-5	100.0%			6	>480			Immediate			
Heptane	142-82-5	99.0%										
Hexane	110-54-3	100.0%							Immediate			
Hexane	110-54-3	100.0%			6	>480	Immediate				Immediate	
Hexane	110-54-3	95.0%	6	>480								
Hexanoic Acid	142-62-1	100.0%							6	>480		
Hexanoic Acid Anhydride	2051-49-2	100.0%							6	>480		
Hydraulic fluid		100.0%										
Hydrazine	7803-57-8	98.0%			6	>480					6	>480
Hydrazine	7803-57-8	65.0%	6	>480								

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

Chemical Protection Guides
Chemical permeation (1)

			EN 374						ISO 6529: 2001			
			JACKSON SAFETY* G80 Nitrile Gloves		JACKSON SAFETY* G80 Nitrile Gauntlet		KLEENGUARD* G20 Atlantic Green Nitrile Gloves		KLEENGUARD* A80 Fabric		KLEENGUARD* A71 Fabric	
Chemical	CAS#	Concentration	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result
Hydrazine	7803-57-8	55.0%	6	>480			6	>480	6	>480	6	>480
Hydrazine	7803-57-8	35.0%							6	>480	6	>480
Hydrobromic acid	10035-10-6	35.0%									6	>480
Hydrochloric Acid	7647-01-0	37.0%	6	>480	6	>480			6	>480	5	385
Hydrochloric Acid	7647-01-0	32.0%					4	164				
Hydrochloric Acid	7647-01-0	30.0%					4	210				
Hydrochloric Acid	7647-01-0	5.0%					6	>480				
Hydrofluoric Acid	7664-39-3	40.0%	4	190					2	38	6	>480
Hydrofluoric Acid	7664-39-3	10.0%							6	>480	6	>480
Hydrogen Bromide	10035-10-6	35.0%							6	>480		
Hydrogen peroxide	7722-84-1	50.0%							6	>480		
Hydrogen peroxide	7722-84-1	30.0%	6	>480			Immediate				6	>480
Iron (III) chloride	7705-08-0	45.0%									6	>480
Iron (III) chloride	7705-08-0	40.0%	6	>480			6	>480	6	>480		
Iron (III) chloride	7705-08-0	4.0%									6	>480
Isobutyl alcohol	78-83-1	99.0%							6	>480		
isohexane	64741-49-0	100.0%							Immediate			
Iso-octane	540-84-1	100.0%	6	>480								
Isopropanol	67-63-0	100.0%					1	11	6	>480		
Isopropanol	67-63-0	99.8%	6	>480								
Isopropanol	67-63-0	99.5%										
Isopropanol	67-63-0	70.0%					1	28				
Isopropyl acetate	108-21-4	100.0%							1	19		
Isopropyl Ether	108-20-3	100.0%							Immediate			
Isopropylamine	75-31-0	100.0%							Immediate			
Itaconic acid	97-65-4	100.0%							6	>480		
Kerosene	8008-20-6	100.0%	6	>480			1	11				
Lactic acid	50-21-5	85.0%	6	>480	6	>480						
Lithium chromate	14307-35-8	36.0%							6	>480		
Maleic acid	110-16-7	100.0%	6	>480	6	>480						
Mercapto acetic acid	68-11-1	100.0%							6	>480		
Methacrylic acid	79-41-4	99.0%							5	230		
Methacrylic anhydride	760-93-0	94.0%							6	>480		
Methane sulphonyl chloride	124-63-0	100.0%							6	>480		
Methanol	67-56-1	99.9%	2	40	2	40	Immediate		6	>480	1	23
Methoxy Acetic Acid	625-45-6	100.0%							6	>480		
Methoxypropanol	107-98-2	98.0%							6	>480		
Methoxypropyl acetate	108-65-6	98.0%							6	>480		
Methyl acetate	79-20-9	100.0%							Immediate			
Methyl Butyl Ketone	591-78-6	100.0%							1	11		
Methyl Ethyl Ketone	78-93-3	100.0%			1	15			1	25		
Methyl Ethyl Ketone	78-93-3	99.0%	Immediate									
Methyl iodide	74-88-4	100.0%							Immediate			
Methyl isobutylcarbinol	108-11-2	100.0%							6	>480		
Methyl Methacrylate	80-62-6	99.0%	1	22								
Methyl propyl ketone	107-87-9	99.0%	1	11	1	22						
Methyl t-Butyl Ether	1634-04-4	100.0%	5	376								
Methyl t-Butyl Ether	1634-04-4	99.0%										
methylene chloride	75-09-2	99.9%							Immediate			
Mineral Spirits		100.0%										
Monochloroacetic acid	79-11-8	85.0%							6	>480		
Naptha	8030-30-6	100.0%	5	311								
Nitric acid	7697-37-2	70.0%					Immediate		6	>480	6	>480
Nitric acid	7697-37-2	50.0%					1	11				
Nitric acid	7697-37-2	40.0%	6	>480	6	>480						
Nitrobenzene	98-95-3	100.0%									6	>480
Nitrobenzene	98-95-3	99.0%										
Octyl alcohol	111-87-5	100.0%	6	>480	6	>480						
Oleum	8014-95-7	30.0%							3	90		
o-toluidine	95-53-4	98.0%							6	>480		
Oxirane	106-89-8	100.0%							2	45		
Peracetic acid	79-21-0	1.0%							6	>480	6	>480
Peracetic acid	79-21-0	0.5%										

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

Chemical Protection Guides
Chemical permeation (1)

			EN 374						ISO 6529: 2001			
			JACKSON SAFETY* G80 Nitrile Gloves		JACKSON SAFETY* G80 Nitrile Gauntlet		KLEENGUARD* G20 Atlantic Green Nitrile Gloves		KLEENGUARD* A80 Fabric		KLEENGUARD* A71 Fabric	
Chemical	CAS#	Concentration	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result
Perchloric acid	7601-90-3	100.0%	6	>480	6	>480			6	>480		
Perchloric acid	7601-90-3	60.0%							6	>480		
Petroleum distillate	64741-65-7	100.0%							1	17		
P-fluoro aniline	371-40-4	100.0%							3	105		
Phenol	108-95-2	85.0%							6	>480		
Phenol	108-95-2	80.0%										
Phosphoric Acid	7664-38-2	85.0%	6	>480					6	>480		
Phosphoric Acid	7664-38-2	5.0%									6	>480
Pine Oil		80.0%										
Potassium dichromate	7778-50-9	1.0%							6	>480		
Potassium hydroxide	1310-58-3	50.0%	6	>480	6	>480						
Potassium methoxide	865-33-8	32.0%							6	>480		
Potassium nitrate sat. sol.	7757-79-1	100.0%							6	>480		
Propionaldehyde	123-38-6	100.0%							Immediate			
Propyl acetate	109-60-4	100.0%	1	14	3	68						
Propyl bromide	106-94-5	99.0%										
Purasolv Ethyl Lactate ✈ (2)			4	201			1	12				
Round Up Weedkiller		100.0%										
Sodium acetate trihydrate, sat. sol.	6131-90-4	100.0%							6	>480		
Sodium cyanide sat. sol.	143-33-9	100.0%							6	>480		
Sodium dichromate	10588-01-9	10.0%							6	>480		
Sodium Hydroxide	1310-73-2	50.0%	6	>480	6	>480	6	>480	6	>480	6	>480
Sodium Hydroxide	1310-73-2	40.0%					6	>480	6	>480	6	>480
Sodium Hydroxide	1310-73-2	37.0%					6	>480				
Sodium Hydroxide	1310-73-2	10.0%							6	>480		
Sodium hypochlorite	7681-52-9	14.0%			6	>480	6	>480				
Sodium hypochlorite	7681-52-9	13.0%										
Sodium hypochlorite	7681-52-9	12.0%							6	>480		
Sodium hypochlorite	7681-52-9	10.0%	6	>480							6	>480
Sodium Metabisulphate solution	7681-57-4	40.0%							6	>480		
Sodium methylate in methanol	124-41-4	30.0%							6	>480		
Sodium Nitrate	7631-99-4	35.0%							6	>480		
Sodium Sulphate	7757-82-6	35.0%							6	>480		
Styrene	100-42-5	100.0%							Immediate			
Sulphuric Acid	7664-93-9	100.0%			4	150						
Sulphuric Acid	7664-93-9	96.0%	4	>120			Immediate		6	>480	6	>480
Sulphuric Acid	7664-93-9	95.0%									6	>480
Sulphuric Acid	7664-93-9	51.0%										
Sulphuric Acid	7664-93-9	50.0%					6	>480				
Sulphuric Acid	7664-93-9	30.0%			6	>480			6	>480	6	>480
Sulphuric Acid	7664-93-9	5.0%					6	>480				
Tannic acid	1401-55-4	30.0%							6	>480		
Techniclean OX1 ✈ (2)			4	227			1	11				
Tetrachloroethylene	124-18-4	100.0%										
Tetrachloroethylene	124-18-4	99.0%	5	278								
Tetrahydrofuran	109-99-9	100.0%									Immediate	
Tetrahydrofuran	109-99-9	99.9%	Immediate									
Thiophene	110-02-1	100.0%							Immediate			
Thoinyl chloride	7719-09-7	100.0%							Immediate			
Titanium tetrachloride	7550-45-0	100.0%										
Toluene	108-88-3	100.0%			2	39					Immediate	
Toluene	108-88-3	99.9%	1	21			Immediate					
Trichloroacetic acid	76-03-9	80.0%							6	>480		
Triethylamine	121-44-8	100.0%							Immediate			
Triethylorthoformate	122-51-0	100.0%							3	94		
Trifluoro methane sulphonic acid	1493-13-6	100.0%							Immediate			
Trimethylacetylchloride	3282-30-2	100.0%							2	35		
Trimethylorthoformate	149-73-5	100.0%							3	113		
Turpentine		100.0%			6	>480						
unleaded petrol	86290-81-5	100.0%					Immediate				Immediate	
Valeric acid	109-52-4	100.0%							6	>480		
Valeric anhydride	2082-59-9	100.0%							5	248		
Vinyl Acetate		99.0%										
Xylene	1330-20-7	98.5%	2	40	3	115	Immediate					

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com
(2) Aviation branded chemical

Chemical Protection Guides
Chemical penetration (1)

EN ISO 6530:2005 - Resistance of materials to penetration by liquids/chemicals of low volatility

In ISO 6530:2005, also known as the "gutter test", a measured quantity of the test chemical is applied to the fabric in the form of a fine stream or jet. The amount of chemical which penetrates and is repelled by the fabric is measured. There are 3 classifications for penetration and repellency (defined in EN 14325:2004).

Class	Penetration	Repellency
1	<10%	>80%
2	<5%	>90%
3	<1%	>95%

To comply with the standard, a product must meet the following:
- Class 3 for repellency for at least one of the four selected liquid chemicals
- Class 2 for penetration for at least one of the four selected liquid chemicals

The four defined chemicals, NaOH (10%), H2SO4 (30%), o-xylene and butan-1-ol have been identified for these standard tests as representative of a range of chemical properties but do not cover all types chemicals and concentrations.

All users of PPE are legally required to carry out risk assessments for any task they wish to perform. It is our intention to supply the information regarding the performance of PPE which will allow a qualified safety officer to make the correct choice of PPE based on the risk assessment.

We have tested additional chemicals which are listed in the table below.

			KLEENGUARD* A20 Fabric		KLEENGUARD* A40 Fabric		KLEENGUARD* A50 Fabric	
			Penetration	Repellency	Penetration	Repellency	Penetration	Repellency
2 Butoxyethanol	111-76-2	98.0%					2	1
Acetic Acid	64-19-7	40.0%			3	3		
Acetone	67-64-1	100.0%			3	1		
Acetophenone	98-86-2	100.0%			3	3		
Actellic 25 EC		1.0%					2	2
Bromobenzene	108-86-1	100.0%					2	1
Buraton 10F		100.0%			3	1	3	1
Butan-1-ol	71-36-3	100.0%					3	1
Chlorobenzene	108-90-70	100.0%					2	1
Coopex W		1.0%					3	3
Coopex WP		0.5%					3	3
Demon 40WP		0.37%					3	3
Empire 20		2.5%					3	3
Ethanol	64-17-5	95.0%			3	2		
Ethanol	64-17-5	90.0%	0	0			2	1
Ethyl benzene	100-41-4	100.0%					2	1
Ethyl bromide	74-96-4	100.0%					2	0
Ethylene glycol	107-21-1	100.0%					3	2
Fenitrothion 50 ec		2.0%					2	2
Ferric nitrate	10421-48-4	50.0%					3	2
Ficam W		30.0%					3	3
Fluorosilicic acid	16961-83-4	35.0%					2	1
Formaldehyde	50-00-0	37.0%			3	3		
Formic acid	64-18-6	40.0%			3	3		
Heptane	142-82-5	100.0%	0	0	3	0		
Hexane	110-54-3	100.0%					2	0
Hydrochloric Acid	7647-01-0	37.0%			3	2		
Incidin Extra N		100.0%			3	1	3	1
Incidin Plus		100.0%			3	1	3	2
Incidur		100.0%			3	1	3	1
Manganese (II) nitrate	10377-66-9	50.0%					3	2
Methyl formate	107-31-3	100.0%					1	0
N Butyl acetate	123-86-4	100.0%					1	1
Nickel nitrate	13138-45-9	5.0%					3	3
Nitric acid	7697-37-2	40.0%			3	3		
Peripel		20.0%					3	2
Peripel		16.0%					3	3
Phosphoric Acid	7664-38-2	50.0%					3	2
Potassium hydroxide	1310-58-3	48.0%					3	1
Propionic acid	79-09-4	98.0%					1	0
Propionic acid	79-09-4	30.0%					2	1
Quartacid Plus		100.0%			3	1	3	1
Reslin premium		33.0%					3	2
Reslin premium		11.0%					2	2
Sekusept		100.0%			3	1	3	2
Sodium Hydroxide	1310-73-2	48.0%			3	2		
Sodium Hydroxide	1310-73-2	47.0%					3	2
Sodium Hydroxide	1310-73-2	10.0%	3	3	3	3	3	3
Sodium Nitrate	7631-99-4	44.0%					3	2
Sulphuric Acid	7664-93-9	35.0%			3	3		
Sulphuric Acid	7664-93-9	30.0%	3	3	3	3	3	2
Xylene	1330-20-7	100.0%					2	1

(1) For the latest information on Chemical protection, please visit our website: www.kcprofessional.com

Making compliance easy
The legal responsibilities

Under European legislation it is an employer's legal responsibility to assess the need for personal protective equipment in their working environment and, where required, provide the protective eye and face wear, respirators, hearing, gloves and protective clothing free of charge to the workforce.

European regulations set the standards for personal protective equipment and define categories of equipment according to the level of protection under three main classifications:

- CE Simple (minimal risk – CAT I)
- CE Intermediate (areas of specific risk – CAT II)
- CE Complex (risk of serious or mortal danger – CAT III)

Personal Protective Equipment must be:

- Appropriate for the risk
- Capable of fitting correctly
- Comfortable to wear
- CE marked where applicable

The employer must also provide training to the employee on how, when and what protective equipment must be worn.

European legislation demands the correct personal protection for your workforce

KIMBERLY-CLARK PROFESSIONAL* has the answers
We make it easier for you to meet these obligations through:

- High-quality, technically proven products
- Performance enhancing design
- Technical support
- Versatile ranges with sizings providing comfortable solutions to virtually all employees
- Quality assured manufacturing

Simple identification, ordering and use KIMBERLY-CLARK PROFESSIONAL* product identity system includes:

- Colour coding for ease of identification (respirators and selected gloves only)
- Standard symbols to indicate products meeting or exceeding the requirements of specific European standards
- Packaging to protect equipment until use
- Multi-lingual user information

Comfort and productivity
Safety essentials

Essential to an individual's safety and productivity is personal comfort and freedom of movement. The worker must be protected, but must also be able to perform tasks effectively and without restriction. Discomfort created by badly-fitting equipment may lead to non-compliance with safety regulations and lower productivity.

This is why KIMBERLY-CLARK PROFESSIONAL* places so much importance on the comfort and fit of their ranges of protective eye wear, respirators, hearing, gloves and protective clothing.

Continuing investment in product development has established KIMBERLY-CLARK PROFESSIONAL* as a world leader in patented non-woven fabrics that guarantee comfortable protection possible.

More comfort
Our products are comfortable to wear and available in a range of sizes, providing each member of your workforce with the appropriate protective equipment.

- The patented KLEENGUARD* More Movement protective clothing contains innovative grey stretch material that offers users additional comfort and range of movement.
- Ultra thin film gloves offering improved dexterity with chemical splash protection.
- A patented comfort strap will help respirator users work safely without itching or painfully catching their hair.
- Patented ear clips provide users with a unique approach to hearing protection focussed on improving long term comfort.

More breathability
KIMBERLY-CLARK PROFESSIONAL* has developed special fabrics that offer the required level of protection while allowing air to enter the KLEENGUARD* protective clothing and the wearer's body heat to escape. Our advanced dual-valved JACKSON SAFETY* respirators protect the individual and improve the level of breathability.

More choice
Our JACKSON SAFETY* eye and face wear are lightweight, stylish and robust solutions that comply with safety requirements.

When you are looking to improve performance in the workplace, we have more to offer

More Essentials from KIMBERLY-CLARK PROFESSIONAL*
Products designed to help maximise efficiency and productivity

In addition to the comprehensive range of Personal Protective Equipment featured in this catalogue, we also offer a full range of Welding, Wiping and Washroom Solutions.

WELDING SOLUTIONS
We offer a complete range of Personal Protective Equipment to protect your eyes, face and head against the multiple hazards encountered during welding tasks.

Helping you to stay safe and productive on the job, we offer a wide range of welding filters and helmet solutions, some of them extended to cover the additional respiratory protection needs for specific respiratory hazards.

JACKSON* SAFETY Brand

WIPING SOLUTIONS - PUTTING YOUR EFFICIENCY FIRST
We know that improving efficiency is important to you. This has, and continues to be, our number one focus. By working together, our wiping solutions can more effectively solve your workplace challenges.

WYPALL BRAND KIMTECH BRAND

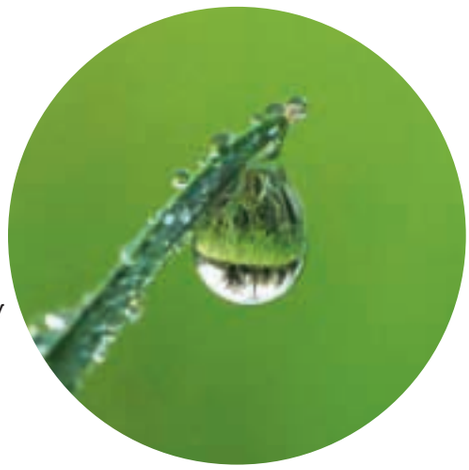
WASHROOM SOLUTIONS
We set the standards when it comes to the Washroom environment. We commit ourselves to delivering a superior hygiene and superior image-conscious bundle that combines an impressive and innovative product range.

MARQUE Kleenex® BRAND Scott® BRAND

For more information, please visit **www.kcprofessional.com**

REDUCE TODAY, RESPECT TOMORROW*
Our sustainability promise

Sustainability is an essential part of how we operate at Kimberly-Clark Corporation. REDUCE TODAY, RESPECT TOMORROW* is about making a positive impact on the world today, with respect for the generations of tomorrow.



We are committed to helping create a world where people can access and enjoy the basics of life — from clean water to rewarding employment. This is why our sustainability strategy addresses climate change, ecosystems, biodiversity and building more sustainable supply chains to ensure responsible consumption.

Our strategy(1) revolves around three pillars of sustainability: people, planet and products.

PEOPLE
Our "Who's counting on you" safety program is driving the culture change needed to assure that every Kimberly-Clark colleague, contractor and visitor goes home safe at the end of each day.

We expect our 30,000-plus suppliers worldwide to comply with all applicable laws and our Kimberly-Clark standards in the areas of working hours, fair wages, child/forced labour, non-discrimination, freedom of association, safety/health and environmental stewardship and to work to enhance the sustainability of their operations.

PLANET
We use sustainable environmental practices to grow responsibly in a world of finite resources and we're constantly searching for opportunities to reduce the impact of our energy-intensive manufacturing operations.

PRODUCTS
We strive to deliver high performing products that meet essential needs in a sustainable way by seeking to reduce the environmental impact at every stage of a product's life cycle—from raw material sourcing to manufacturing, from packaging to transport, and from design and use to final disposal.

For more information visit **www.kcpreducetoday.com**

REDUCE TODAY
RESPECT TOMORROW*

(1) For more information, please see our Sustainability 2010 report, http://www.sustainabilityreport2010.kimberly-clark.com

Personal Protective Equipment
Notes

Notes

Kimberly-Clark PROFESSIONAL*

Exceptional Workplaces*

Count on KIMBERLY-CLARK PROFESSIONAL* to provide the essentials for a healthier, safer and more productive workplace.

Place your order today with your local representative

Visit our website to browse the complete range www.kcprofessional.com

It is the employer's responsibility to assess the risk of the task to be undertaken and determine the correct choice of personal protective equipment for the task. The manufacturer, Kimberly-Clark, does not accept any responsibility for the incorrect choice or misuse of the personal protective equipment shown in this brochure. All care has been taken to ensure that the information contained herein is as accurate as possible at the time of publication, however errors may occur and legislation concerning personal protective equipment is under constant review and may change in the lifetime of this brochure. Accordingly, the specification for the products may be subject to change. Always dispose of used protective equipment in a safe and appropriate manner in accordance with European, National and Local environmental regulations.

www.kcprofessional.com

Kimberly-Clark PROFESSIONAL*

Exceptional Workplaces

Kimberly-Clark Hygiene Products Private Limited

Survey No. 279, Raisoni Industrial Park, Village-Mann,
Taluka-Mulshi, District-Pune – 411 057.

E-mail: marketing.india@kcc.com
Customer Care No. : +91-20-30547175
Website : www.kcprofessional.co.in

REDUCE TODAY, RESPECT TOMORROW* is the KIMBERLY-CLARK PROFESSIONAL* approach to sustainability. By embedding sustainability principles into product innovation processes and utilising life cycle thinking, KIMBERLY-CLARK PROFESSIONAL* is working to reduce the use of the worlds natural resources. Reduction is the key to lowering the environmental impact of our activities as well as those of our customers.
To learn more: www.kcpreducetoday.com.

REDUCE TODAY
RESPECT TOMORROW

21102013