

# Chemical Defence Guide Vol.3





# CHEMICAL RESISTANT



## 316 360° Total Coverage

Heavyweight nitrile, 15 mil thickness, *sure-grip* diamond pattern finish, cotton flock lining, 12" straight cuff  
P316 packaged for retail

Size 8-11

**EN374-1:2016 - AJKL0T  
TYPE A**



RATINGS |  
TECHNOLOGIES

EN374-5:2016



EN374-1:2016



AJKLOT



## 400 360° Total Coverage

Heavyweight rubber latex, 28 mil thickness, *sure-grip* diamond pattern finish, cotton flock lining, 12" straight cuff

Size 7-11

**EN374-1:2016 - AKLN0T  
TYPE A**



RATINGS |  
TECHNOLOGIES

EN374-1:2016



AKLN0T



## 500 360° Total Coverage

Heavyweight natural rubber latex, 28 mil thickness, *sure-grip* diamond pattern finish, cotton flock lining, 12" straight cuff

Size 7-11

**EN374-1:2016 - AKLN0T  
TYPE A**



RATINGS |  
TECHNOLOGIES

EN374-5:2016



EN374-1:2016



AJKLOT

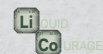


## 455 Triple Shot

ANSI A3 nylon/glass liner, *hi-vis* yellow fully coated PVC with sandy finish, proprietary rubber on back of hand, treated with Actifresh®, 30cm gauntlet style cuff

Size L-XXL

**EN374-1:2016 - KLT TYPE B  
EN388 4X32B  
ANSI Cut A3**



RATINGS |  
TECHNOLOGIES



EN374-1:2016



KLT TYPE B

ANSI



PUNCTURE

EN388



4X32B

ANSI



CUT



## 9341 Foamtastic

Foam lining, double-dipped PVC coating, "Be safe, be seen" with *hi-vis* safety orange, treated with Actifresh®, 12" gauntlet style cuff

Size OS

**EN374-1:2016 - MTPSAKL  
TYPE A  
EN388 4212**



FOAMTASTIC

RATINGS |  
TECHNOLOGIES



EN374-5:2016



VIRUS

EN511



111

EN374-1:2016



MTPSAKL

TYPE A

EN388



4121X



## 9408 Stealth Iceman

Acrylic/wool lining, full dip flat PVC coating, knuckle dip black PVC coating, treated with Actifresh®, gauntlet style cuff

Size L-XL

**EN374-1:2016 - MKLPT  
TYPE A**



STEALTH

RATINGS |  
TECHNOLOGIES



ANSI



PUNCTURE

EN374-3



KLMPPT

EN511



12X

EN388



4242

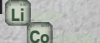


## 9456 Hammered

Acrylic lining, 13gg Aramid/steel/nylon cut resistant liner, "Be safe, be seen" with *hi-vis* orange PVC coating, sandy finish, heavy duty TPR on back of hand, 30cm gauntlet style cuff

Size M-XL

**ANSI Cut A5 - F2992-15  
EN374-1:2016 - AKLOPT  
EN388 4X42EP**



RATINGS |  
TECHNOLOGIES



EN388



3X43EP

EN374-3



AKLOPT

EN511



X11

EN407



X1XXXX

ANSI



CUT



## 5551PF Rival Monkey®

8 mil high risk nitrile disposable with superior chemical resistance to acids, alkalis, alcohol & fuel, extended 11" rolled cuff, 50 gloves per dispenser

Size S-XXL

**EN374-1:2016 - JKOPST  
TYPE A  
EN388 2000X**



Rival Monkey

RATINGS |  
TECHNOLOGIES



EN388



2000X

EN374-5:2016



VIRUS

EN374-1:2016



JKOPST -TYPE A

REACH



COMPLIANCE



# CHEMICAL RESISTANT







**WG12 Dura Dip**

Double-dipped PVC, *sure-grip* textured finish, treated with Actifresh®, 12" gauntlet

Size OS

**EN374-1:2016 - JKLMTPS TYPE A**



**RATINGS | TECHNOLOGIES**



EN374-5:2016

**VIRUS**



EN374-1:2016

**JKLMTPS TYPE A**



EN388

**4121X**





**WG14 Dura Dip**

Double-dipped PVC, *sure-grip* textured finish, treated with Actifresh®, 14" gauntlet

Size OS

**EN374-1:2016 - JKLMTPS TYPE A**



**RATINGS | TECHNOLOGIES**



EN374-5:2016

**VIRUS**



EN374-1:2016

**JKLMTPS TYPE A**



EN388

**4121X**





**WG18 Dura Dip**

Double-dipped PVC, *sure-grip* textured finish, treated with Actifresh®, 18" gauntlet

Size OS

**EN374-1:2016 - JKLMTPS TYPE A**



**RATINGS | TECHNOLOGIES**



EN374-5:2016

**VIRUS**



EN374-1:2016

**JKLMTPS TYPE A**



EN388

**4121X**



**CUT RESISTANT**



**IMPACT RESISTANT**



**CHEMICAL RESISTANT**



**WINTER**



**WATER RESISTANT**



**VIRUS RESISTANT**



**IMPACT, CUT  
& CHEMICAL**

#9456

**FEATURES**

- 13GG acrylic lining keep hands warm in cold conditions
- Aramid steel/ nylon liner is cut resistant (ANSI A5)
- Hi Vis orange fully coated PVC with sandy finish provides chemical protection
- Heavy duty rubber on back of hand, fingers and wrist provides impact protection






## CHEMICAL RESISTANT STANDARD

The ISO 374 Protective gloves against dangerous chemicals and micro-organisms have changed substantially and have now been published under the standard ISO EN374-1: 2016 and EN374-5: 2016. The changes are laid out below:

NEW	OLD
EN ISO 374: 2016	EN374: 2003
18 test chemicals	12 test chemicals
Beaker icon is not used	Beaker icon used to illustrate: "waterproof protective gloves with limited protection against chemical dangers"
Gloves are classified as type A, B or C	----
Change of labeling on product: Three pictogram flasks with different number of letters for test chemicals underneath	Pictogram flask only had three chemicals
Introduction of EN 374-4: 2013 for a test of glove performance against chemical degradation	----
Gloves longer than 400mm will require three test specimens from cuff area tested for permeation	----
Microorganisms split - virus is separately tested to En374-5:2016	Microorganism protection based on penetration performance
3 defined AQL levels gloves must meet depending on application requirements of user	AQL of level 2 for all gloves tested against penetration
Requirement length removed	Minimum liquid proof length of 25Cm required
Requirement removed	En388 mechanical testing required

## EN374-1:2016 PICTOGRAMS

As previously stated, the beaker icon is no longer used. Instead there are three flask pictograms as shown below.

TYPE A	TYPE B	TYPE C
EN 374-1:2016  JKLMNO	EN 374-1:2016  JKL	EN 374-1:2016  J

**TYPE A:** Protective glove with permeation resistance of at least 30 minutes each for at least 6 test chemicals

**TYPE B:** Protective glove with permeation resistance of at least 30 minutes each for at least 3 test chemicals

**TYPE C:** Protective glove with permeation resistance of at least 10 minutes each for at least 1 test chemicals



## RESISTANCE TO PERMEATION

The number of test chemicals increased from 12 to 18 chemicals which are code lettered M-T as shown below.

CODE LETTER	CHEMICAL	CAS NUMBER	CATEGORY
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 Disulfide	75-15-0	Sulphur <small>Containing Organic Compound</small>
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofuran	109-99-9	Heterocyclic & Ethereal
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	Sulfuric Acid 96%	7664-93-9	Inorganic Mineral Acid
M	Nitric Acid 65%	7697-37-2	Inorganic Mineral Acid
N	Acetic Acid 99%	64-19-7	Organic Acid
O	Ammonium Hydroxide 25%	1336-21-6	Organic base
P	Hydrogen Peroxide 30%	7722-84-1	Peroxide
S	Hydrofluoric Acid 40%	7664-39-3	Inorganic Mineral Acid
T	Formaldehyde 37%	50-00-0	Aldehyde

## EN374-5:2016 PICTOGRAMS

The EN 374-5:2016 standard specifies performance requirements for gloves that protect users against micro-organisms (bacteria, fungi and/or viruses). Standards for micro-organisms risk was formerly under EN374-2 but now has been developed as a separate EN 374 part as EN374-5:2016. Gloves claiming protection against bacteria, fungi and viruses require additional penetration testing according to ISO 16604:2004 Determination of resistance to protective clothing materials to penetration by blood-borne pathogens. Test method uses Phi-X174 bacteriophage

WITHOUT VIRUS PROTECTION	WITH VIRUS PROTECTION
<p>EN374-5:2016</p> 	<p>EN374-5:2016</p>  <p>VIRUS</p>

The pictogram above is used for our gloves that protect against bacteria and fungi

The pictogram above is used for our gloves that protect against bacteria, fungi and viruses





# CHEMICAL RESISTANT CHART

LEGEND	LATEX		PVC	PVC
NOT RECOMMENDED (LEVEL 0)	400 360 TOTAL COVERAGE	500 360 TOTAL COVERAGE	9341 FOAMTASTIC	WG12/WG14/ WG18
SPLASH (LEVEL 1-2)				
GOOD (LEVEL 3-4)				
EXCELLENT (LEVEL 5-6)				
EXACT BREAKTHROUGH TIME UNKNOWN (<30 MINS)				
COATING	LATEX	LATEX	PVC	PVC
THICKNESS (MIL)	28 MIL	28 MIL		
AQL				
EN374-2:2003 (PENETRATION)	PASS	PASS	PASS	PASS
EN374-1:2016 (PERMEATION)	AKLNOT	AKLNOT	MTPSAKL	JKLMTPS
PERFORMANCE LEVEL	265443	265444	3665363	2655666
METHANOL (A)	32 MINS	>30 MINS	>60 MINS	
ACETONE (B)				
ACETONITRILE (C)				
DICHLOROMETHANE (D)				
CARBONE DISULPHIDE (E)				
TOLUENE (F)				
DIETHYLAMINE (G)				
TETRAHYDROFURANCE (H)				
ETHYL ACETATE (I)				
N-HEPTANE (J)				>30 MINS
SODIUM HYDROXIDE 40% (K)	>480 MINS	>480 MINS	>480 MINS	>480 MINS
SULPHURIC ACID 96% (L)	319 MINS	356 MINS	>60 MINS	>240 MINS
NITRIC ACID 65% (M)			>60 MINS	>240 MINS
ACETIC ACID 99% (N)	159 MINS	217 MINS		
AMMONIUM HYDRO 30% (O)	199 MINS	153 MINS		
HYDROGEN PEROXIDE 30% (P)			>480 MINS	>480 MINS
HYDROFLURIC ACID 40% (S)			>240 MINS	>480 MINS
FORMALDEHYDE (T)	110 MINS	197 MINS	>480 MINS	>480 MINS

BREAKTHROUGH TIME	PERFORMANCE LEVEL	BREAKTHROUGH TIME	PERFORMANCE LEVEL
>10 MINS	LEVEL 1	>120 MINS	LEVEL 4
>30 MINS	LEVEL 2	>240 MINS	LEVEL 5
>60 MINS	LEVEL 3	>480 MINS	LEVEL 6



# CHEMICAL RESISTANT CHART



LEGEND	PVC			NITRILE	NITRILE
NOT RECOMMENDED (LEVEL 0)	455 TRIPLE SHOT	9408 ICEMAN	9457 HAMMERED	316 360 TOTAL COVERAGE	5551PF RIVAL MONKEY®
SPLASH (LEVEL 1-2)					
GOOD (LEVEL 3-4)					
EXCELLENT (LEVEL 5-6)					
EXACT BREAKTHROUGH TIME UNKNOWN (<30 MINS)					
COATING	PVC	PVC	PVC	NITRILE	NITRILE
THICKNESS (MIL)				15 MIL	8 MIL
AQL					0.65
EN374-2:2003 (PENETRATION)	PASS	PASS			
EN374-1:2016 (PERMEATION)	KLT	MKLPT	AKLOPT	AJKLOT	JKOPST
PERFORMANCE LEVEL	636	36366		266356	662624
METHANOL (A)			TBD	44 MINS	
ACETONE (B)					
ACETONITRILE (C)					
DICHLOROMETHANE (D)					
CARBONE DISULPHIDE (E)					
TOLUENE (F)					
DIETHYLAMINE (G)					
TETRAHYDROFURANCE (H)					
ETHYL ACETATE (I)					
N-HEPTANE (J)				>480 MINS	>480 MINS
SODIUM HYDROXIDE 40% (K)	>480 MINS	>480 MINS	TBD	>480 MINS	>480 MINS
SULPHURIC ACID 96% (L)	60 MINS	>60 MINS	TBD	85 MINS	>14 MINS
NITRIC ACID 65% (M)		>60 MINS			
ACETIC ACID 99% (N)					
AMMONIUM HYDRO 30% (O)			TBD	390 MINS	>39 MINS
HYDROGEN PEROXIDE 30% (P)		>480 MINS	TBD		>480 MINS
HYDROFLURIC ACID 40% (S)					35 MINS
FORMALDEHYDE (T)	>480 MINS	>480 MINS	TBD	>480 MINS	223 MINS

WARNING AND DISCLAIMER. WATSON GLOVES HEREBY WARNS ALL POTENTIAL USERS OF ITS CHEMICAL RESISTANT PRODUCTS THAT THEY ARE NOT SUITABLE FOR ALL USES. THESE PRODUCTS HAVE BEEN TESTED IN LAB CONDITIONS ONLY.

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## Our Story

### Watson in a Nutshell

With a century of experience, Watson Gloves is Canada's single source for hand protection at work, at home, at play. Our team of glove specialists gets tremendous satisfaction from working with our customers to find the perfect hand protection for just about any task imaginable. Whether we source our gloves from the world's finest manufacturers, or hand-craft them in our local factory, every pair of gloves we sell has been selected for top-of-the-line materials, design and craftsmanship. Try on a pair of Watson gloves. Your hands will thank you!

### 2 Man Show to International Operation

In April 1918, John Watson and Wayne Stanley started a small business selling hand-crafted gloves to Vancouver's dock workers. Today, 102 years later, Watson Gloves has grown across Canada. We are among the country's leaders of distributing hand protection; offering the widest range of quality gloves for work, home and play.

How did we get here? We have stayed true to our founders' belief that quality materials and above-and-beyond customer service go hand-in-glove. We still make gloves. In fact, our artisans – with an average 20 years' experience – put the same level of dedication and craftsmanship into every pair of gloves we make, as did our founders.

Perhaps more importantly, we have expanded our horizons to keep up with our customers' changing needs. Our talented buyers travel the world over in search of the most innovative materials and designs so that we can offer the best gloves for any task: at work, at home, at play. From bustling cities to remote corners of our country and countries across the Atlantic, our team of sales reps and efficient distribution system make it easy to protect the hands of our customers.

At Watson Gloves, we do one thing, and we do it extremely well: we are the glove experts. Mr. Watson and Mr. Stanley would be proud to know that, even as we continue to grow, we continue to earn our reputation as Canada's single source for hand protection.

### Our Commitment

At Watson Gloves, quality materials and above-and-beyond customer service go hand-in-glove. You can count on Watson for:

**Quality** Every pair of gloves we sell has been hand-selected for top-of-the-line materials, design, and craftsmanship.

**Service with a Smile** Our experienced team of specialists is committed to our customers' complete satisfaction with each and every pair of Watson gloves purchased.

**Innovation** We commit to staying one step ahead of our customers; anticipating their needs and bringing the most advanced gloves for just about any job imaginable.



Watson Gloves 1920's

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