

## Technical Report Summary

VicLab Pty Ltd, a NATA accredited laboratory number 14722



### Testing Summary

Samples of gloves described as 'The Glove Company® - Chloronite® Gloves' were tested for the determination of resistance to permeation by chemicals in accordance with glove assessment requirements of **EN 420 / AS/NZS 2161.2:2005**, chemical performance requirements of **EN 374-1, 2 & 3 / AS/NZS 2161.10.1:2005** and with the mechanical performance requirements of **EN 388 / AS/NZS 2161.3:2005**.

### Samples

The Glove Company® Chloronite® Gloves

### Testing Standards

**EN 420 permeation test results – Page 2**

**EN 374 permeation test results – Page 2-3**

**EN 388 permeation test results – Page 4**

**EN 420 / AS/NZS 2161.2:2005.** The standard lists general requirements for protective gloves in terms of construction, fitness of purpose, safety, etc.

**EN 374-1 / AS/NZS 2161.10.1:2005.** Protective gloves against chemicals and micro-organisms Part 1: Terminology and performance requirements.

**EN 374-2 & 3 / AS/NZS 2161.10.2&3:2005.** Protective gloves against chemical determination of resistance to permeation by chemicals.

**EN 388 / AS/NZS 2161.3:2005.** This standard lists and rates protection against mechanical hazards.

EN 374



EN 388



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### Conclusion

When tested in accordance with EN 374 Part 2: 2003 the samples of The Glove Company's Chloronite® Gloves achieved the performance breakthrough times outlined on page 3.

## TECHNICAL TESTING SHEET

Test description	Method
Assessment	EN 420 / AS/NZS 2161.2:2005

Clause	Description	Requirement	Compliance
4.1	Design & Construction	Designed for foreseeable conditions	Compliance
4.3.1	General	Designed for appropriate protection	Compliance
		Not adversely affect health	Compliance
4.4	Cleaning	Performance shall not be affected negatively	Compliance

Clause 5.11	Size & Measure of Hand	
Hand Size	Hand Circumference (mm/ inches)	Hand Length (mm/ inches)
6	152mm/ 5.98"	160mm/ 6.30"
8	203mm/ 7.99"	182mm/ 7.17"
10	254mm/ 10"	204mm/ 8.03"
11	279mm/ 10.98"	215mm/ 8.46"
Sizes checked = 6 (small), 8 (medium), 10 (large), 11 (extra large)		

Clause 5.1.2	Size & Measure of Glove	
Glove Size	Fit	Minimum length of glove (mm/ inches)
6	Hand size 6	220mm/ 8.66"
8	Hand size 8	240mm/ 9.45"
10	Hand size 10	260mm/ 10.24"
11	Hand size 11	270mm/ 10.63"
Sizes checked = 6 (small), 8 (medium), 10 (large), 11 (extra large)		

Clause 5.2	Dexterity	
Level of Performance	Smallest diameter of pin fulfilling test conditions	
5	5	Yes
Level of performance checked = 5		

Test description	Method
Assessment	EN 374-1 EN374-2 / AS/NZS 2161.10.1:2005

Clause	Requirement	Result	Compliance
5.2.1	Gloves shall not leak when tested according to the test methods in EN 374-2 (5.2 and 5.3) and both tests shall be passed according to the criteria in the relevant clauses of EN 374-2. If one test proves unsuitable, the reasons shall be reported.	No leakage	Compliance
5.2.2	A glove shall be considered as micro-organism resistant when it conforms to at least level 2 of the penetration test of annex A of EN 374-2.	Level 2 conformity	Compliance

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Test description		Method				
Assessment cont'd		EN 374-1 EN374-2 / AS/NZS 2161.10.1:2005				
Clause	Requirement	Result			Compliance	
5.3.1	Each combination protective glove/test chemical is classified, in terms of breakthrough time, according to each individual chemical for which the glove resists permeation. Level 6 is the highest permeation level.	Chemical A	Level	6	Compliance	
		Chemical B	Level	6	Compliance	
		Chemical C	Level	6	Compliance	
		Chemical D	Level	6	Compliance	
		Chemical E	Level	6	Compliance	
		Chemical G	Level	6	Compliance	
		Chemical H	Level	6	Compliance	
		Chemical I	Level	6	Compliance	
		Chemical J	Level	6	Compliance	
		Chemical K	Level	6	Compliance	
		Chemical L	Level	3	Compliance	
		Unleaded Petrol	Level	6	Compliance	
		Methyl ethyl ketone	Level	6	Compliance	
		Xylene	Level	6	Compliance	
Skydrol*	Level	6	Compliance			
5.3.2	A glove shall have at least a permeation performance level 2 when tested against three chemicals taken from the list of test chemicals in Annex A. Level 6 is the highest level.	Methanol	Chemical A	Breakthrough time	>480min	Compliance
		Acetone	Chemical B	Breakthrough time	>480min	Compliance
		Acetonitrile	Chemical C	Breakthrough time	>480min	Compliance
		Dichloromethane	Chemical D	Breakthrough time	>480min	Compliance
		Carbon Disulfide	Chemical E	Breakthrough time	>480min	Compliance
		Diethylamine	Chemical G	Breakthrough time	>480min	Compliance
		Tetrahydrofuran	Chemical H	Breakthrough time	>480min	Compliance
		Ethyl Acetate	Chemical I	Breakthrough time	>480min	Compliance
		n-Heptan	Chemical J	Breakthrough time	>480min	Compliance
		Sodium Hydroxide 40%	Chemical K	Breakthrough time	>480min	Compliance
		Sulphuric Acid 96%	Chemical L	Breakthrough time	>60min	Compliance
		Unleaded Petrol	-	Breakthrough time	>480min	Compliance
		Methyl ethyl ketone	-	Breakthrough time	>480min	Compliance
		Xylene	-	Breakthrough time	>480min	Compliance
Skydrol*	-	Breakthrough time	>480min	Compliance		
5.4	For each glove style recommended for use against chemicals, and/or micro-organisms the obtained performance level shall be reported in the instructions supplied by the manufacturer for the following mechanical tests: <ul style="list-style-type: none"> <li>• Abrasion resistance</li> <li>• Blade cut resistance</li> <li>• Tearing resistance</li> <li>• Puncture resistance</li> </ul> According to the test methods described in EN 388	Level 1 Level 1 Level 0 Level 1	Compliance Compliance Non Compliance			


6	Marking of the protective glove shall be in accordance with the marking requirement for gloves of EN 420. The appropriate pictogram shall be used.	Pictogram used: EN 374 	NT
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TABLE 1 – PERMEATION PERFORMANCE LEVELS	
Measured breakthrough time (min)	Permeation performance levels
> 10	1
> 30	2
> 60	3
> 120	4
> 240	5
> 480	6

Test description	Method
Assessment	EN 388 / AS/NZS 2161.3:2005

Clause	Description	Requirement	Result	Compliance
6.1	Abrasion resistance			
	Level 1	No wear-through after 100 cycles	325 cycles	Compliance
6.2	Cut resistance			
	Level 1	≥1.2	1.27	Compliance
6.3	Tear Resistance			
	Level 0	≥10N	3.5N	Non Compliance
6.4	Puncture resistance			
	Level 1	≥20N	22.IN	Compliance

\*Please note; that even though Chloronite® gloves have passes a level 6 test with Skydrol the user may notice a slight softening of the glove film with prolonged exposure to Skydrol.

The Glove Company recommends that the gloves be used as a single use only glove in this application and then disposed of.