

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



CEPHAS MEDICAL PRIVATE LIMITED
 DP 33, 34, 46 & 47, SIDCO INDUSTRIAL ESTATE (URBAN)
 VIRUDHUNAGAR-626103
 INDIA
CONTACT PERSON : S.RAVICHANDRAN

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION	GLOVES
	18" NITRILE UNLINED GLOVES
COLOUR	GREEN
STYLE NO.	SIZE: 10 (EXTRA LARGE)
COUNTRY OF ORIGIN	INDIA
PHOTO APPENDIX.	



SAMPLE RECD ON

24/09/2018

TESTING PERIOD : 24/09/2018 - 12/10/2018

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



Summary of Test Results/Conclusion

Test Method / Standard	Clause/Test Name	Status / Performance Level
BS EN 388:2016	Protective Gloves against mechanical risks	
	Clause 6.1- Abrasion Resistance	Performance level 4
	Clause 6.2- Blade Cut Resistance (Coupe test)	Performance level 0
	Clause 6.4- Tear Resistance	Performance level 0
	Clause 6.5- Puncture Resistance	Performance level 1
EN 374-2:2014	Protective gloves against chemicals and micro-organisms:Determination of resistance penetration	
	Clause 4.1 – Air leak test	Pass
	Clause 4.2 – Water leak test	Pass
EN 16523-1:2015	Permeation by Liquid chemical under conditions of continuous contact.	
	Methanol	Level 2
	n-Heptane	Level 6
	Sodium hydroxide 40%	Level 6
	Sulphuric acid 96%	Level 4
	Nitric acid 65%	Level 3
	Acetic acid 99%	Level 6
EN 374-4:2013	Resistance to Degradation by Chemicals	
	Methanol	Refer results.
	n-Heptane	Refer results.
	Sodium hydroxide 40%	Refer results.
	Sulphuric acid 96%	Refer results.
	Nitric acid 65%	Refer results.
	Acetic acid 99%	Refer results.
EN 420:2003+A1.2009	Protective gloves - General requirements	
	Sizing	Refer enclosed pages.
	Dexterity	Performance level 5
	pH Value	Pass

Per pro SGS India Private Ltd.

K. Pachaiyappan

K. PACHAIYAPPAN
ASST. MANAGER

Email your Test Report Related Enquiries at Feedback.SLT@sgs.com

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



RESULTS

BS EN 388 : 2016 Protective Gloves against mechanical risks

Clause	Test Name	Result	Performance level
6.1	Abrasion resistance Protection part : Palm	Sample # Break Through Between /(Rubs)	Level – 4
		1 >8000	
		2 >8000	
		3 >8000	
		4 >8000	
Observation : Break through not occurred upto 8000 rubs.			
6.2	Blade cut resistance (Coupe test) Protection part : Palm	Sample # Blade cut Index /(Index)	Level – 0
		1 1.10 1.09 1.09 1.10 1.10	
		Mean : 1.10	
		2 1.10 1.10 1.10 1.09 1.10	
		Mean : 1.10	
6.4	Tear resistance Protection part : Palm	Sample # Maximum Force/(N)	Level – 0
		1 6.9	
		2 8.6	
		3 8.8	
		4 5.6	
6.5	Puncture resistance Protection part : Palm	Sample # Maximum Force/(N)	Level – 1
		1 52.9	
		2 50.0	
		3 52.0	
		4 54.6	

Note : Sample not dulling the blade of coupe cut test (number of cycles on control specimen after first sequence of test specimen is greater than 3 times of initial control fabric value)

Requirement as per BS EN 388:2016

Table - 1

Clause/Test Name	Level 1	Level 2	Level 3	Level 4	Level 5
6.1 Abrasion resistance (Number of rubs)	100	500	2000	8000	-
6.2 Coupe test: Blade cut resistance (index)	1.2	2.5	5.0	10.0	20.0
6.4 Tear resistance (N)	10	25	50	75	-
6.5 Puncture resistance (N)	20	60	100	150	-

***** End of page*****

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



RESULTS

EN 374-2 : 2014 Protective gloves against chemicals and micro-organisms – Part-2: Determination of resistance penetration

Clause	Test Name	Test Results		Performance level
4.1	Air leak Test (Air Pressure Used : 5.0 kPa)	Specimen #	Leakage	Pass
		1	No Leakage	
		2	No Leakage	
		3	No Leakage	
		4	No Leakage	
4.2	Water leak test	Specimen #	Leakage	Pass
		1	No Leakage	
		2	No Leakage	
		3	No Leakage	
		4	No Leakage	

EN 420 : 2003+A1: 2009 Protective Gloves – General requirements and test methods

Clause	Test Name	Result				Average	Standard sizing
5.1	Sizing Declared size 10 Circumference (mm) Length (mm)	271	275	273.0	10½		
		450	456	453.0			
5.2	Dexterity Smallest Pin Diameter (mm)	5	5	5	5	Performance level 5	

*→ Fit for special purpose.

pH VALUE

With reference to ISO 3071:2005/Analysis by pH meter

Extraction Solution : KCL

NITRILE UNLINED GLOVES – GREEN

Value 6.2 3.5 - 9.5

Note : pH value of extraction medium : 5.0 – 7.5
Temperature of the extraction solution : 25±2 °C

Note: Requirements given as per EN 420:2003 +A1:2009 (Clause: 4.3.2).

**** End of Page****

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



RESULTS

EN 16523-1:2015 Determination of material resistance to permeation by chemicals – Part-1: Permeation by Liquid chemical under conditions of Continuous contact.

Chemical CAS NO	Loop system/collection medium	Analytical technique used	Mean thickness (mm)	NBT at NPR ^{1.93} μcm^{-2} min^{-1} (minutes)	Performance level accordance to EN ISO 374-1: 2016 Table 1	Observation
Methanol 67-56-1	Open loop/ Nitrogen	Continuous measurement With GC-FID	0.65 0.64 0.64	43 52 55	Level – 2	Slight swelling
n-Heptane 142-85-5	Open loop/ Nitrogen	Continuous measurement With GC-FID	0.64 0.65 0.66	> 480 > 480 > 480	Level – 6	No change
Sodium hydroxide 40% 1310-73-2	Closed loop/ Grade 3 water	Continuous measurement With Conductivity electrode	0.65 0.65 0.64	> 480 > 480 > 480	Level – 6	No change
Sulphuric acid 96% 7664-93-9	Closed loop/ Grade 3 water	Continuous measurement With Conductivity electrode	0.64 0.66 0.65	139 145 148	Level – 4	Severe swelling & colour change
Nitric acid 65% 7697-37-2	Closed loop/ Grade 3 water	Continuous measurement With Conductivity electrode	0.64 0.64 0.65	89 95 90	Level – 3	Severe swelling
Acetic acid 99% 64-19-7	Closed loop/ Grade 3 water	Continuous measurement With Conductivity electrode	0.65 0.66 0.64	> 480 > 480 > 480	Level – 6	Slight swelling

***** End of page*****

TEST REPORT

Report No. : CH:TX:9420049164

DATE : 15/10/2018



RESULTS

EN 374-4:2013 Protective Gloves against Chemicals and Micro Organisms – Determination of resistance to degradation by chemicals

Chemical / CAS NO	Exposure Duration	Test Results		Observation
		Percentage change in puncture resistance		
		Glove sample	Result (%)	
Methanol 67-56-1	60±5 minutes	1	17.3	Slight swelling
		2	16.4	
		3	14.5	
		Mean	16.0	
		Standard Deviation	1.412	
n-Heptane 142-85-5	60±5 minutes	1	33.3	Slight swelling
		2	36.2	
		3	35.1	
		Mean	34.9	
		Standard Deviation	1.475	
Sodium hydroxide 40% 1310-73-2	60±5 minutes	1	22.0	No change
		2	24.3	
		3	24.1	
		Mean	23.5	
		Standard Deviation	1.244	
Sulphuric acid 96% 7664-93-9	60±5 minutes	1	31.9	Moderate swelling
		2	32.1	
		3	29.1	
		Mean	31.0	
		Standard Deviation	1.701	
Nitric acid 65% 7697-37-2	60±5 minutes	1	73.3	Slight swelling
		2	76.6	
		3	75.7	
		Mean	75.2	
		Standard Deviation	1.726	
Acetic acid 99% 64-19-7	60±5 minutes	1	40.5	Slight swelling
		2	38.0	
		3	39.4	
		Mean	39.3	
		Standard Deviation	1.251	

***** End of Report*****