PRODUCT SPECIFICATION

Product:	Flocklined Nitrile Glove
Article No.:	RNF 15
Material:	Acrylonitrile Butadiene Rubber
Colour:	Green, Blue
Lining:	Cotton
Size:	S, M, L, XL, XXL, XXXL (7, 8, 9, 10, 11, 12)
Applications:	Chemical handling, petrochemical industries, automobile industries, printing and food processing
Thickness (mm):	0.40 +/- 0.03
Length (mm):	330 +/- 10
Compliance with:	German Foodstuffs and Consumer Goods Act Personal Protective Equipment Directive 89/686/EEC under Complex Design Category FFDCA 21 CFR 177.2600

TECHNICAL SPECIFICATION

Tensile Strength	Unaged	Aged (22hr, 100c)
Tensile Strength at break	22 MPa (min)	18 MPa (min)
Elongation at break	350%	300%

EN 388-94	Level
Abrasion Resistance	4
Blade Cut	0
Tear Strength	0
Puncture Test	2

MANUFACTURER:

FILREX (M) SDN BHD
Lot 138201, off 3/4 mile, Kawasan Perindustrian Bercham,
Jalan Bercham, 31400 Ipoh, Perak, Malaysia.
Tel. No.: 605-5482723
Fax No.: 605-5482726
e-mail address: rmsb@po.jaring.my

Note: This specification replaces all previous issue of the product specification

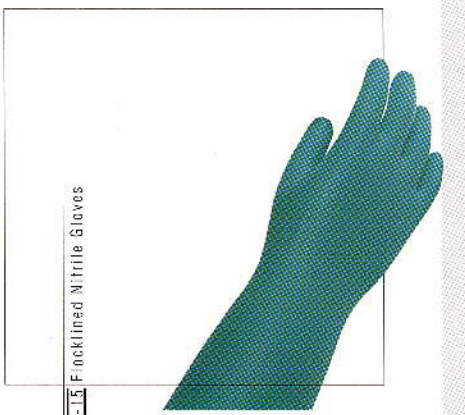
Compiled on : 1 June 1999

nitrile gloves

RUBBEREX CHEMICAL RESISTANCE GUIDE

DEGRADATION & PERMEATION TEST DATA

CHEMICAL AND CONCENTRATION	SUPER NITRILE RNF-15			
	En 374 Class.	Avg. Normalized B/T Time (Min)	Avg. Perm. Rate µg/cm²•Min.	Avg. Degrd. Rate
1. Acetaldehyde, 99.5%	-	-	-	P
2. Acetic Acid, 99+%	3	80	50	G
3. Acetone, 99.5%	-	-	-	NR
4. Acetonitrile, 99%	2	<15	426	G
5. Acrylic Acid, 99%	3	75	8.3	F
6. Ammonium Fluoride, 40%	6	>480	<0.005	E
7. Ammonuim Hydroxide, 85%	5	320	0.6	NR
8. Amyl Acetate, 100%	4	183	30.1	E
9. Amyl Alcohol, 99+%	6	>480	<0.04	E
10. Aniline, 99+%	-	-	-	NR
11. Aqua Regia	5	280	>16.45	E
12. Benzaldehyde, 99.5%	-	-	-	NR
13. Bromopropionic Acid, Sat.	6	>480	<0.033	E
14. Butyl Acetate, 99+%	3	66	57.6	F
15. Butyl Alcohol, 99%	6	>480	<0.07	E
16. Butyl Cellosolve, 99+%	6	>480	<0.04	E
17. Butyrolactone, 99+%	-	-	-	NR
18. Carbon Disulfide, 99.9%	1	14	C/B	F
19. Carbon Tetrachloride, 99+%	6	>480	<0.002	E
20. Cellosolve Acetate, 99+%	3	100	27.7	G
21. Chromic Acid, 50%	6	>480	<0.001	E
22. Citric Acid, 10%	6	>480	<0.013	NR
23. Cyclohexanol, 98%	6	>480	<0.001	E
24. Diacetone Alcohol, 99%	5	273	977.3	E
25. Dibutyl Phthalate, 99%	6	>480	<0.001	E
26. Diethylamine, 99+%	2	25	72.6	G
27. Diisobutyl Ketone, 80%	6	>480	<0.005	E
28. Dimethyl Acetamide, 99+%	-	-	-	NR
29. N,N-Dimethylformamide, 99+%	-	-	-	NR
30. Dimethyl Sulfoxide, 99+%	4	166	4.2	G
31. Dioctyl Phthalate, 99%	6	>480	<0.013	G
32. 1,4-Dioxane, 99.9%	-	-	-	NR
33. Epichlorohydrin, 99+%	-	-	-	NR
34. Ethyl Acetate, 99+%	-	-	-	NR
35. Ethyl Alcohol, 90+%	5	293	1.5	E
36. Ethyl Ether, 99+%	2	48	18.9	E
37. Ethyl Glycol Ether, 99%	4	151	21	F
38. Ethylene Glycol, 99+%	6	>480	<0.001	E
39. Formaldehyde, 99%	6	>480	<0.001	E
40. Formic Acid, 95+%	3	60	>16.45	P
41. Freon TF, 99+%	6	>480	<0.35	P
42. Furfural, 99%	-	-	-	NR
43. Gasoline, White, 100%	6	>480	<0.06	E
44. Hexamethyldisilazine, 97%	6	>480	<0.001	E
45. Hexane, 99+%	6	>480	<0.001	E
46. Hydrazine, 65%	5	388	3.2	E
47. Hydrochloric Acid, 10%	6	>480	<0.026	E
48. Hydrochloric Acid, 38%	6	>480	<0.026	E
49. Hydrofluoric Acid, 48%	6	>480	<0.010	G
50. Hydrogen Peroxide, 30%	6	>480	<0.002	E



Avg. ---------- Average
B/T ---------- Breakthrough
C/B ---------- Catastrophic Breakthrough
Perm. ---------- Permeation
Degrd ---------- Degradation
En 374 Class. ---- European Classification
Min ---------- Minutes
- ---------- Not Tested

KEY TO DEGRADATION RATINGS

% Weight Change (Gain)	Degradation Rating	
0 to 10	Excellent	E
11 to 20	Good	G
21 to 30	Fair	F
31 to 50, or small loss	Poor	P
Above 50	Not Recommended	NR

NR - Avoid use of the glove with this chemical.

En 374 Class	Permeation Time (Minutes)
0	<10 min.
1	>10 min.
2	>30 min.
3	>60 min.
4	>120 min.
5	>240 min.
6	>480 min.

Rubberex Chemical Resistance Guide


RNF-15 Flocklined Nitrile Gloves

Data shown from the following charts are the result of laboratory tests and are intended to serve as a guide only. Results were arrived at by examination of new gloves samples selected at random.

This test data is not an absolute basis for glove selection as testing was done strictly in controlled laboratory conditions. Actual conditions will dictate other performance cababilities of the product. Factors such as glove re-use, thermal conditions, chemical mixtures, the products resistance to abrasion, cuts and punctures may also affect performance.

Therefore, when selecting a glove for its specific application, you must do your own evaluation based on actual working conditions.

CHEMICAL AND CONCENTRATION	SUPER NITRILE RNF-15			
	En 374 Class.	Avg. Normalized B/T Time (Min)	Avg. Perm. Rate µg/cm²•Min.	Avg. Degrd. Rate
51. Hydroquinone, Sat.	6	>480	<0.033	E
52. Isobutyl Alcohol, 99+%	6	>480	<0.002	E
53. Iso-Octane, 99%	6	>480	<0.001	E
54. Isopropyl Alcohol, 99+%	6	>480	<0.001	E
55. Kerosene, 100%	6	>480	0.1	E
56. Lactic Acid, 85%	6	>480	<0.07	G
57. Lauric Acid, 36%	5	>450	<0.1	E
58. Maleic Acid, Saturated	6	>480	<0.1	E
59. Methyl Alcohol, 99.9+%	2	59	7.5	G
60. Methylamine, 40%	6	>480	<0.002	E
61. Methyl t-Butyl Ether, 99.8%	5	393	98.3	E
62. Methyl Cellosolve, 99%	3	80	19.9	F
63. Methyl Ethyl Ketone, 99+%	-	-	-	NR
64. Mineral Spirits, Rule 66,100%	6	>480	<0.004	E
65. Monoethanolamine, 99+%	6	>480	<0.001	E
66. Morpholine, 99%	-	-	-	NR
67. Muriatic Acid, 100%	6	>480	<0.026	E
68. Naphtha VM & P, 100%	6	>480	<0.002	E
69. N-Methyl-2-Pyrrolidone, 99+%	-	-	-	NR
70. Nitric Acid, 10%	6	>480	<0.039	E
71. Nitric Acid, 70%	-	-	-	NR
72. Nitrobenzene, 99%	-	-	-	NR
73. Nitromethane, 95.5%	0	7	6.3	NR
74. Nitropropane, 95.5%	-	-	-	NR
75. Octyl Alcohol, 99+%	6	>480	<0.002	E
76. Oleic Acid, 99+%	6	>480	<0.002	E
77. Oxalic Acid, 12.5%	6	>480	<0.039	E
78. Palmitic Acid, Sat.	4	236	0.2	E
79. Pentachlorophenol, 35%	4	160	7.58	E
80. Pentane, 98%	6	>480	<0.001	E
81. Perchloric Acid, 60%	6	>480	<0.005	E
82. Phenol, 90%	-	-	-	NR
83. Phosphoric Acid, 85%	5	450	0.849	E
84. Potassium Hydroxide, 50%	6	>480	<0.18	E
85. Propyl Acetate, 99%	1	28	105	F
86. Propyl Alcohol, 96+%	6	>480	<0.09	E
87. Pyridine, 99%	-	-	-	NR
88. Rubber Solvent, 100%	6	>480	<0.04	E
89. Sodium Hydroxide, 50%	6	>480	<0.022	G
90. Stoddard Solvent, 99%	6	>480	<0.002	E
91. Sulfuric Acid, 47%	6	>480	<0.018	G
92. Sulfuric Acid, 95%	-	-	-	NR
93. Tannic Acid, 37.5%	5	>325	0.3	E
94. 1,1,2,2-Tetrachloroethane, 99%	1	15	1337	NR
95. Tetrachloroethylene, 100%	5	350	0.6	NR
96. Toluene, 99+%	1	19	13.8	NR
97. 1,1,1-Trichloroethane, 99%	3	76	51	E
98. Tricresyl Phosphate, 90%	5	330	0.29	G
99. Triethanolamine, 85%	-	-	-	G
100. Turpentine, 100%	6	>480	<0.003	E
101. Xylene, 99%	3	64	3.6	E

NOTE: DATA IN THIS GUIDE REFERS TO RUBBEREX SUPER NITRILE RNF-15 ONLY

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KAWASAN PERINDUSTRIAN BERCHAM, 31400 IPOH, PERAK, WEST MALAYSIA.
TEL: 605-5482723/724/725 • **FAX: 605-5482726, 5486491, 5470443**

nitrile

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Introductory Details

Date of issue:	1 June 1999
Edition:	1

Product Details

Product Type:	Nitrile Flocklined Glove
Article No.:	RNF 15
Main polymer composition:	Nitrile Synthetic Rubber
Polymer name:	Acrylonitrile Butadiene Rubber
Usage:	Hand protection against oil, fats, solvents and chemicals Suitable for use in automobile, aircraft, printing, paint, food processing, and petrochemical industries.

Manufacturer's Name:	Filrex (Malaysia) Sdn Bhd
Manufacturer's Address:	Lot 138201, off 3/4 mile, Kawasan Perindustrian Bercham, Jalan Bercham, 31400 Ipoh, Perak, Malaysia.
Telephone No.:	605-5482723
Fax No.:	605-5482726
E-mail address:	rmsb@po.jaring.my

SECTION 2: INFORMATION ON INGREDIENT

Chemical composition:

- Acrylonitrile Butadiene Rubber
- Cotton flock
- Pottasium Hydroxide
- Antioxidant
- Rubber accelerator
- Colour Pigment
- Sulphur
- Titanium Dioxide
- Zinc Oxide

SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Smooth finish with internal flock lining
Colour:	Green, Blue
Thickness :	0.40 +/- 0.03 mm
Length :	330 +/- 10 mm
Tensile strength at break:	20 MPa min (unaged)
Elongation at break:	350% min (unaged)
Tensile strength at break:	18 MPa min (aged at 100C for 22 hours)
Elongation at break:	300% min (aged at 100C for 22 hours)

SECTION 4 : HAZARD IDENTIFICATION

Nil

SECTION 5 : FIRST AID MEASURE

Skin contact: If rashes appear on skin after contact, please seek medical advice and discontinue use (for those individuals who may have allergic response to cotton flock, carba and mercapto mix type of accelerators.)
Suitable for individuals who are allergic to natural rubber and thiuram mix.

SECTION 6 : FIRE FIGHTING MEASURES

If the product caught fire, it will release dense black smoke.
Extinguishing media: Carbon dioxide

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Leak / Spill: Not applicable

SECTION 8 : HANDLING AND STORAGE

Handling: Worn by enduser for hand protection
Storage: Packed in polyethylene or polypropylene bags in a cool, dry place, away from direct sunlight and heat.

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure limit: Not applicable
Personal protection: Not applicable
Ventilation: Not applicable

SECTION 10 : STABILITY AND REACTIVITY

Conditions to avoid: Dry cleaning, direct heating and sunlight.
Incompatibles: Nil
Decomposition Products: Nil
Hazardous Polymerization: Nil

SECTION 11 : TOXICOLOGY INFORMATION

Toxicity Data:	Nil
Carcinogenicity:	Nil
Reproductive effect:	Nil
Effects of overexposure:	Nil
Chronic effects:	Nil
Target organs:	Nil
Medical conditions generally aggravated by exposure:	Nil

SECTION 12 : ECOLOGICAL INFORMATION

Biodegradability: No

SECTION 13 : DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable national environment laws and regulations

SECTION 14 : TRANSPORT INFORMATION

No special requirements

SECTION 15 : OTHER INFORMATION

This product carries the CE mark under the complex design category as per PPE directive 89/686/EEC.
Complied to the German Foodstuffs and Consumer Goods Act as per directive 90/128/EC.
Complied to FDA 21 CFR 177.2600

SECTION 16 : CONTACT POINT

In case of emergency or for further information, please contact the following

Filrex (Malaysia) Sdn Bhd

Lot 138201, off 3/4 mile, Kawasan Perindustrian Bercham,
Jalan Bercham, 31400 Ipoh, Perak, Malaysia.
Telephone No.: 605-5482723
Fax No.: 605-5482726
E-mail address: rmsb@po.jaring.my

Note: This edition replaces all other previous edition of the MSDS
This data given is based on our current experience and knowledge. This information is intended for guidance and should not be used as a warranty for the performance of this product.