Fleximake Pty Ltd

A.B.N 55 146 538 301
19 ZILLA COURT, DANDENONG SOUTH. VIC 3175. AUSTRALIA
Telephone: (03) 8772 2228 | 1300 195 295
Fax: (03) 8774 7772
Email: sales@fleximake.com.au
Web: www.fleximake.com.au

Material Data Sheet

High Performance XR-5® 8130 Reinforced Geomembrane

Properties	Typical Characteristics	
Test Standard	Metric Units	English Units
Base Fabric Type Base Fabric Weight (nominal) ASTM D751	Polyester 220 g/m2	Polyester 6.5 oz/yd2
Thickness ASTM D751	0.76 mm min	30.0 mils min
Weight ASTM D751	1017 +/- 70 g/m2	30.0 +/- 2 oz/yd2
Tear Strength ASTM D4533 Trapezoid Tear	175/245 N min	40/55 lb min
Breaking Yield Strength ASTM D751 Grab Tensile	2448/2448 N min	550/550 lb min
Low Temperature Resistance ASTM D2136 4 hr - 1/8" mandrel	Pass @ -34° C	Pass @ -30° F
Dimensional Stability ASTM D1204 212° F / 100° C - 1 hr	0.5% max each direction	0.5% max each direction
Adhesion Heat Sealed Seam ASTM D751 Dielectric Weld	17.5 daN/5 cm min	40 lb/2 in min
Dead Load Seam Strength ASTM D751 4-hour test	5 cm seam, 4 hrs, 2.5 cm strip Pass 1068 N/2.54cm @21° C Pass 534 N/2.54cm @ 70° C	2 in seam, 4 hrs, 1 in strip Pass 240 lb @ 70° F Pass 120 lb @ 160° F
Bursting Strength ASTM D751 Ball Tip	3330 N min	750 lb min
Hydrostatic Resistance ASTM D751 Procedure A	5.51 MPa min	800 psi min
Blocking Resistance ASTM D751 180° F / 82° C	#2 Rating max	
Adhesion – Ply ASTM D413 Type A	13 daN/5 cm min or Film Tearing Bond	15 lb/in min or Film Tearing Bond

Fleximake Pty Ltd

A.B.N 55 146 538 301
19 ZILLA COURT, DANDENONG SOUTH. VIC 3175. AUSTRALIA
Telephone: (03) 8772 2228 | 1300 195 295
Fax: (03) 8774 7772
Email: sales@fleximake.com.au
Web: www.fleximake.com.au

Bonded Seam Strength ASTM D751 Grab Test Method Procedure A	2450 N min	550 lb min
Abrasion Resistance ASTM D3389 H-18 Wheel 1kg Load	2000 cycles (min) before fabric exposure 50 mg/100 cycles maximum weight loss	
Weathering Resistance ASTM G153 (Carbon-Arc)	8000 hrs (min)-No appreciable changes or stiffening or cracking of coating	
Water Absorption ASTM D471 Section 12 7 Days	0.025 kg/m2 max @ 70° F/21° C 0.14 kg/m2 max @ 212° F/100° C	
Wicking ASTM D751	0.3 cm max	1/8 in max
Puncture Resistance ASTM D4833	1200 N min	275 lb min
Coefficient Of Thermal Expansion/Contraction ASTM D696	1.4 x 10-5 cm/cm/°C max	8 x 10-6 in/in/°F max
Environmental/Chemical Resistant Properties	See Chemical Resistance Table	
Puncture Resistance FED-STD 101C Method 2031	1550 N (approximate)	350 lb (approximate)

The above data was provided by our material supplier. This product data sheet is subjected to revisions once additional know-how is gained. We make no guarantee of results and assume no obligation liability whatsoever in connection with this information.

Fleximake Pty Ltd

A.B.N 55 146 538 301
19 ZILLA COURT, DANDENONG SOUTH. VIC 3175. AUSTRALIA
Telephone: (03) 8772 2228 | 1300 195 295
Fax: (03) 8774 7772
Email: sales@fleximake.com.au
Web: www.fleximake.com.au

Fluid Resistance Guidelines (XR-5®)

Rating Key:
A – Fluid has little or no effect
B – Fluid has minor to moderate effect
C – Fluid has severe effect
T – No data - likely to be acceptable
X – No data - not likely to be acceptable

EXPOSURE	RATING	EXPOSURE	RATING
AFFF	A	JP-4 Jet Fuel	A
Acetic Acid (5%)	B	JP-5 Jet Fuel	A
Acetic Acid (50%)	C	JP-8 Jet Fuel	A
Ammonium Phosphate	T	Kerosene	A
Ammonium Sulfate	T	Magnesium Chloride	T
Antifreeze (ethylene glycol)	A	Magnesium Hydroxide	T
Animal Oil	A	Methanol	A
Aqua Regia	X	Methyl Alcohol	A
ASTM Fuel A (100% Iso-octane)	A	Methyl Ethyl Ketone	X
ASTM Oil #2 (Flash pt. 240° C)	A	Mineral Spirits	A
ASTM Oil #3	A	Naphtha	A
Benzene	X	Nitric Acid (5%)	B
Calcium Chloride Solutions	T	Nitric Acid (50%)	C
Calcium Hydroxide	T	Perchloroethylene	C
20% Chlorine Solution	A	Phenol	X
Clorox	A	Phenol Formaldehyde	B
Conc. Ammonium Hydroxide	A	Phosophoric Acid (50%)	A
Corn Oil	A	Phosophoric Acid (100%)	C
Crude Oil	A	Phthalate Plasticizer	C
Diesel Fuel	A	Potassium Chloride	T
Ethanol	A	Potassium Sulphate	T
Ethyl Acetate	C	Raw Linseed Oil	A
Ethyl Alcohol	A	SAE-30 Oil	A
Fertilizer Solution	A	Salt Water (25%)	B
#2 Fuel Oil	A	Sea Water	A
#6 Fuel Oil	A	Sodium Acetate Solutions	T
Furfural	X	Sodium Bisulfite Solution	T
Gasoline	B	Sodium Hydroxide (60%)	A
Glycerin	A	Sodium Phosphate	T
Hydraulic Fluid- Petroleum Based	A	Sulphuric Acid (50%)	A
Hydraulic Fluid- Phosphate Ester Based	C	Tanic Acid (50%)	A
Hydrocarbon Type II (40% Aromatic)	C	Toluene	C
Hydrochloric Acid (50%)	A	Transformer Oil	A
Hydrofluoric Acid (5%)	A	Turpentine	A
Hydrofluoric Acid (50%)	A	Urea Formaldehyde	A
Hydrofluosilicic Acid (30%)	A	UAN	A
Isoprophyl Alcohol	T	Vegetable Oil	A
Ivory Soap	A	Water (200°F)	A
Jet A	A	Xylene	X
		Zinc Chloride	T

Fleximake Pty Ltd

A.B.N 55 146 538 301
19 ZILLA COURT, DANDENONG SOUTH. VIC 3175. AUSTRALIA
Telephone: (03) 8772 2228 | 1300 195 295
Fax: (03) 8774 7772
Email: sales@fleximake.com.au
Web: www.fleximake.com.au

Ratings are based on visual and physical examination of samples after removal from the test chemical after the samples of Black XR-5 were immersed for 28 days at room temperature. Results represent ability of material to retain its performance properties when in contact with the indicated chemical.

The data above is the result of laboratory tests and is intended to serve only as a guide. No performance warranty is intended or implied. The degree of chemical attack on any material is governed by the conditions under which it is exposed. Exposure time, temperature, and size of the area of exposure usually varies considerably in application, therefore, this table is given and accepted at the user's risk. Confirmation of the validity and suitability in specific cases should be obtained.

When considering XR-5 for specific applications, it is suggested that a sample be tested in actual service before specification. Where impractical, tests should be devised which simulate actual service conditions as closely as possible.

Above data was provided by our material supplier. This product data sheet is subject to revisions once additional know-how is gained. We make no guarantee of results and assume no obligation liability whatsoever in connection with this information.