

EGM1020 – Elvaloy® Coated Polyester Geomembrane

Application:

Spill Crew EGM1020 is reinforced polyester geomembrane providing extreme durability and chemical resistance for containment of petroleum products, acids, bases, solvents and a broad range of industrial chemicals (refer table below for chemical resistance). EGM1020 is an ideal choice for collapsible bunds, berms, spill mats, bund liners, floating covers, and other secondary containment applications.

Features:

Spill Crew EGM1020 utilises Elvaloy® a proprietary Ethylene Interpolymer Alloy (EIA) to ensure exceptional flexibility and chemical resistance in demanding applications.

EGM1020 has;

- High strength with excellent puncture, abrasion and tear resistance
- Superior outdoor weathering and UV resistance
- High flexibility and durability
- Low thermal expansion and contraction properties ensuring it is highly stable across a range of temperatures and conditions
- Long life molecular structure – resistant to hardening and degradation
- Exceptional chemical resistance with little or no deterioration of physical properties
- High chemical resistance to petroleum hydrocarbons such as oil, grease, kerosene, gasoline, diesel fuel, naphtha and aviation fuels, including those with FSII or high aromatics.
- Been tested against ASTM Fuel A, B, C, and F representing a spectrum of hydrocarbon exposures from light alkane to high aromatic content. ASTM Fuel's A, B, C and F are test solvents designed to simulate or exceed the chemical exposure of real fuels. Avgas 100LL is closest in chemical analogue to ASTM Fuel B (minus the lead) whilst AVTUR (Jet A, Jet A-1 and JP-8) and AVCAT (JP-5) have similar compatibility to ASTM Fuel C or F. Refer to Chemical Resistance table on page 3 for ratings.



Thermally welded EGM1020 secondary containment bunding

Specifications:

Property	Method	EGM1020
Base Fabric Type	ASTM D 751	Polyester
Base Fabric Weight	ASTM D 751	220gsm (6.5oz/yd ²)
Finished Coated Weight	ASTM D 751	1020 ±68gsm (30 ± 2oz/yd ²)
Thickness	ASTM D 751	0.85mm (33mils)
Tensile Strength (Cut Strip)	ASTM D 751	1,957/1,868 N min. (440/420 lb/in. min.)
Tensile Strength (Grab)	ASTM D 751	2,491/2,669 N min. (560/600 lbf/in min.)
Tear Strength (Trapezoid Tear)	ASTM D 751	347/335 N min. (78/75 lbf min.)
Breaking Yield Strength (Grab Tensile)	ASTM D 751	3,025/3,025 N min. (680/680 lbf min.)
Low Temp. Resistance (4hrs/1/8in Mandrel)	ASTM D 2136	Pass -35°C (Pass -30°F)
Dimensional Stability	ASTM D 1204	0.25% max. each direction
Blocking Resistance	ASTM D 751 180°F/82°C	#1 rating max.
Hydrostatic Resistance	ASTM D 751	5.51 Mpa min. (800 psi min.)
Adhesion	ASTM D 751	132 N/5cm (30 lb/in ² min.)
Adhesion - Heat Welded Seam	ASTM D 751	266 N/5cm (60 lbf/in ² min.)
Dead Load Seam Strength	ASTM D 751	Pass 108.8 kg/cm @ 21°C (Pass 240 lb./in. @ 70°F) Pass 54.4 kg/cm @ 70°C (Pass 120 lb./in. @ 160°F)
Abrasion Resistance (H-18, 1kg Load)	ASTM D 3389	7,000 cycles before fabric exposure, 8 mg/100 cycles max.
Water Absorption (7 Days)	ASTM D 471, Section 12	0.001 kg/m ² @212°F/100°C
Weathering Resistance	ASTM D 6878	0.03 kg/m ² @212°F/100°C
Wicking	ASTM D 751	1/8 in
Bursting Strength	ASTM D 751	4,000 N min. (900 lb. min.)
Coefficient of Thermal Expansion/Contraction (Static Force = 100N/m, Test Temperature: -30 ~ +30°C)	ASTM D 696	0.64 x10 ⁻⁵ cm/cm °C max.
Puncture Resistance	ASTM D 4833	1,223 N min. (275 lb. min.)
Chemical Resistance Properties	ASTM D 741	Refer to Chemical Resistance Table

Chemical Resistance:

No	Chemical	Rating	No	Chemical	Rating
1	Acetic Acid (5%)	A	32	Lactic acid	A
2	Acetic Acid (50%)	C	33	Linseed oil	A
3	Acetone	A	34	Magnesium Chloride	T
4	ASTM #1 oil	A	35	Magnesium Hydroxide	T
5	ASTM #2 oil	A	36	Methanol	A
6	ASTM #3 oil	A	37	Methyl ethyl ketone	C
7	Ammonium Phosphate	T	38	Methylene chloride	A
8	Ammonium Sulfate	T	39	Mineral spirits	A
9	Aqua Regia	T	40	Naphtha	A
10	ASTM Fuel A (Isooctane)*	A	41	Nitric acid (5%)	A
11	ASTM Fuel B*	B	42	Nitric acid (50%)	C
12	ASTM Fuel C*	B	43	Perchloroethylene	B
13	ASTM Fuel F (Diesel)*	A	44	Phenol	A
14	Benzene (99.5%)	C	45	Phosphoric acid (50%)	A
15	Calcium Chloride (30%)	A	46	Phosphoric acid (85%)	C
16	Calcium Chloride Solutions	T	47	Phthalate plasticiser	C
17	Calcium Hydroxide	T	48	Salt water (25%)	A
18	Chlorine solution (0.3%)	T	49	Sea water	A
19	Corn oil	A	50	Sodium Acetate Solutions	T
20	Cyclohexane	B	51	Sodium Bisulfite Solutions	T
21	Ethanol (=Ethyl Alcohol)	C	52	Sodium hydroxide (40%)	A
22	Ethyl acetate	A	53	Sodium phosphate	T
23	Ethylene Glycol	A	54	Sulphuric acid (50%)	A
24	Furfural	T	55	Sulphuric acid (97%)	C
25	Gasoline	B	56	Tannic acid (10%)	A
26	Glycerin's	A	57	Tannic acid (40%)	A
27	Hydrochloric acid (10%)	A	58	Tetrahydrofuran	C
28	Hydrochloric acid (36%)	C	59	Toluene	C
29	Isopropyl alcohol	A	60	Turpentine	A
30	Ivory Soap	A	61	Vegetable oil	A
31	Kerosene	A	62	Xylene	C

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A = Little or no effect	B = Some effect	C = Severe effect	T = No data - likely to be severe effect
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