

SORBERMIDE™ COVERINGS

coverings specified to US MIL Spec DOD-I-24688, Amendment 1

CLASSIFICATION

Type I - unfaced (thermal and acoustic absorptive) panel

Type II - faced panel

Class 1 - FG Cloth - Fibrous glass cloth faced (thermal)

Class 2 - slotted base board faced with perforated fibrous glass cloth (acoustical)

Class 3 - Faced with primer coated aluminized polyester/aluminium foil reinforced with a fibrous glass scrim

Class 4 - faced with primer coated aluminized polyester/aluminium foil reinforced with a fibrous glass scrim laminated to a lightweight fibrous glass cloth

Class 5 - faced with primer coated white polyester film reinforced with a fibrous glass scrim

PROPERTIES OF TYPE II CLASS 1 (FG CLOTH) AND TYPE II CLASS 2 MIL SPEC DOD-I-24688

Description: FG Cloth is specified for use as TYPE II Class 1 MIL Spec DOD-I-24688 covering. It is a satin weave fiberglass fabric, coated with a white sizing. It's developed as a vapour barrier facing for thermal insulation of ship's bulkheads, structural stiffeners and air-conditioning ductwork, where a flame retardant covering is required. TYPE II Class 2 is 'FG Cloth' fabric as per description above, with perforated face.

Test method	Index	Results	
		English	Metric
ASTM-D-3776	Weight	13.5 oz/yd ² +/- 10%	4598/m ² ± 10%
ASTM-D-1777	Thickness	.016" +/- 10%	0.40mm ± 10%
FED 191/5904	Tensile strength	Warp - 300 lbs/in Min	61.23 kg/cm
		Fill - 255 lbs/in Min	52.05 kg/cm
	Construction	Warp- 48 +/- 2	19/cm ± 1
		Fill- 32 +/- 2	13/cm ± 1
FED 191/5904	Tensile after 900°F	Warp- 70	14.29 kg/cm
		Fill- 60	12.25 kg/cm
ASTM E-84	Flame resistance	Flame Spread 5	
		Smoke Developed 0	

PROPERTIES OF TYPE II CLASS 3 MIL SPEC DOD-I-24688

Description: It is a triple ply laminate made of aluminium foil, fiberglass scrim and heat sealable metallised polyester film. Foil/Film combination provides an excellent vapour barrier.

Test method	Index	Results	
		English	Metric
ASTM-D-3776	Weight	2.4 oz/sy +/- 10%	81.6 g/m ² ± 10%
ASTM-D-1777	Thickness	0.006" +/- 10%	0.152mm ± 10%
ASTM-D-5035	Tensile strength	Warp - 30 lbs/inch	5.3 kg/cm
		Fill - 25 lbs/inch	4.47 kg/cm
ASTM-D-1424	Tear strength	Warp - 24.69 oz.	700 gms.
		Fill - 17.64 oz.	500 gms.
ASTM-D-781	Beach puncture	200 units (53 in/lbs)	61 cm/kg
ASTM D-6413	Flame resistance	Char Length 2 inch max.	5.08 cm max.
		Afterglow 2 sec max.	2 sec max.
		Flame Out 2 sec. max.	2 sec max.
	Heat seal	above 200 °F	14.29 kg/cm
ASTM-E-96	Permeability (MVTR)	0.02 Perms	12.25 kg/cm
ASTM C-1258	Corrosion resistance	120° F @ 20 days - Result - No Corrosion	49°C
	Temperature resistance	- 40 °F to + 200 °F	- 40 °C to + 93 °C

* All values are nominal unless otherwise stated.



PROPERTIES OF TYPE II CLASS 4 MIL SPEC DOD-I-24688

Description: This product is a lamination of TYPE II Class 3 and 'FG Cloth' (Type II Class 1). The combined benefits of these two materials, provide a robust facing product, - TYPE II Class 4. Used as a covering on SORBERMIDE™ foam and mineral fibre foam insulation, it's highly suited for applications exposed to mechanical damage or where abrasion is experienced.

Test method	Index	Results	
		English	Metric
ASTM-D-3776	Weight	16.8 oz/sy +/- 10%	571.2 g/m ² ± 10%
ASTM-D-1777	Thickness	0.02" +/- 10%	0.508mm ± 10%
ASTM-D-5035	Temsile strength	Warp - 240 lbs/inch	42.86 kg/cm
		Fill - 180 lbs/inch	32.15 kg/cm
ASTM-D-5587	Tear strength	Warp - 40 lbs.	18.14 kg.
		Fill - 29 lbs.	13.15 kg.
ASTM-D-781	Beach puncture	1300 units (344.5 in/lbs)	396.5 cm/kg
		Char Lengh 0.25" max.	0.635 cm max.
		Afterglow 1 sec max.	1 sec max.
FED 191/5903.2	Flame resistance	Flame Out 1 sec. max.	1 sec max.
ASTM-E-96	Permeability (MVTR)	0.02 Perms	12.25 kg/cm
ASTM C-1258	Corrosion resistance	120° F @ 28 days - Result - No Corrosion	49°C
	Temperature resistance	- 40 °F to + 200 °F	- 40 °C to + 93 °C

PROPERTIES OF TYPE II CLASS 5 MIL SPEC DOD-I-24688

Description: TYPE II Class 5 is a white polyester reinforced fibreglass scrim. The fibreglass scrim and polyester film are laminated using a high temperature resistant and fire retardant adhesive. It offers resistance to oil and water and is a tough, puncture resistant product .

Test method	Index	Results	
		English	Metric
ASTM-D-3776	Weight	3.0 oz/sy +/- 10%	102 g/m ² ± 10%
ASTM-D-1777	Thickness	0.008" +/- 10%	0.203mm ± 10%
ASTM-D-5035	Temsile strength	Warp - 50 lbs/inch	8.93 kg/cm
		Fill - 50 lbs/inch	8.93 kg/cm
ASTM-D-5587	Tear strength	Warp - 7 lbs.	3.18 gms.
		Fill - 7 lbs.	500 gms.
ASTM-D-781	Beach puncture	400 units (344.5 in/lbs)	122 cm/kg
		Char Length 5 1/2 inch max.	13.97 cm max.
ASTM D-6413	Flame resistance	Afterglow 1 sec max.	1 sec max.
		Flame Out 1 sec. max.	1 sec max.
ASTM-E-96	Permeability (MVTR)	0.5 Perms	
ASTM-84	Flame resistance	Flame spread 5; Smoke developed 10	