

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	Tensile 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
FED 191/5903.2	Flame resistance	Char Length 0.25" max.	0.635 cm max.
		Afterglow 1 sec max.	1 sec max.
		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	Tensile 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
ASTM D-6413	Flame resistance	Char Length 5 1/2 inch max.	13.97 cm max.
		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	

Distributed by



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Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights. DISCLAIMER: This document is covered by Pyrotek standard Disclaimer, Warranty and © Copyright clauses. See pyroteknc.com/disclaimer.

