

# TECHNICAL DATA SHEET

Permal  
Gloucester

## PERMAGLASS CARGO LINING

28/06/01 Issue 03

### WFT/25

#### BENEFITS

- ♦ Lightweight
- ♦ Very high impact strength
- ♦ Low smoke and toxic fume emissions

Permaglass WFT/25 is a high performance, lightweight cargo liner with excellent impact resistance. The woven glass and modified phenolic resin construction is self-extinguishing, with very low smoke and toxic fume emissions. This material has been developed for wide body, long-haul aircraft such as the Boeing 777, and it meets all of the requirements of BMS 8-223, class 4.

#### Impact Strength ( To Boeing BMS8-223 Class Drop Impact )

Type	Nominal Thickness		Impact ft.lbs	Weight lbs/ft <sup>2</sup>
	ins	Tolerance		
13	0.010	± 0.003	10	0.10
20	0.018	± 0.003	15	0.16
30	0.026	± 0.003	18	0.24
40	0.035	± 0.004	23	0.33

#### Edge Bearing ( To Boeing BMS8-223 )

Type	psi
13	25,000
20	32,000
30	35,000
40	40,000

#### Flammability ( To Boeing BSS 7230 )

	Actual	BMS8-223
(A) 60 secs vertical		
Self extinction time	Inst	5 secs (max)
Burn length	3 in	5 in (max)
Drip time	No Drips	0 secs (max)
(B) Fire resistance, 30 secs @ 45°		
Self extinction time	Inst	5 secs (max)
Afterglow	None	5 secs (max)
Flame Penetration	None	None

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(C) Flame Spread index

Pass

25 (max)

### Flammability to FAR 25.855 App.F Part III Amendment 25-60

TEST	Ceiling Specimen Type	Flame Penetration	Back Face Temperature
1	13	NONE	212°F
2	20	NONE	334°F
3	30	NONE	322°F
4	40	NONE	241°F
Requirement	--	NONE	400°F

### Smoke Density and Toxicity of PERMAGLASS WFT/25

Method of Test

- Defined in NBS Technical Note 708
- Samples subjected to flaming combustion
- Toxic gases analysed by Draeger Tube method

### Maximum Smoke Density (Dm) versus Time ( Type 40 material )

Time Mins (Dm)	Boeing Design Large Area (Dm)	Results	Anticipated F.A.A. Requirements Large Area
4.0	50	5 - 10	200

### Toxicity

Time in Minutes	4	4	4	4	4
Toxicant	CO	HCN	HF	HCL	NO <sub>2</sub>
Concentration p.p.m.	350	2	4	16	0
Boeing maximum p.p.m.	1,000	20	50	150	20

### Standard Sheet Size

144" x 60"

Other sizes available on application.

### Finish

Standard finish:- White Tedlar one side

Figures quoted are typical but in all cases meet or exceed BMS8-223 Class 4 requirements