



Conductive Glass Fabric 41-L

This glass fabric was developed by Beyond Gravity especially for the thermal insulation of launcher upper stages. It represents a cost-efficient alternative to ceramic fabrics. The fabric can sustain high temperatures which occur during upper stage engine operation.

Key Features

- Strong cost advantage compared to ceramic fabrics
- Application up to +500°C
- Electrically conductive due to sewed in ESD grid
- Contains no hazardous components
- Manufactured with industrial production processes which allow fast production in large quantities
- Material is not flammable



Specifications

Material Properties

Article no.	PL108886
Material	Glassfibre filament 98,5 - 99%
Weight	209 g/m ² ± 5%
Thickness	0,2 mm ± 5%
Density	2,5-2,6 g/cm ³

Available Dimension

Width	1,55 m
Length	10 m
Multiple single sheets can be delivered together on a roll	

Properties

Outgassing ECSS-Q-70-02A at +125°C	
TML	0,11%
RML	0,04%
CVCN	0,01%
Thermo-optical properties	
Solar absorptance (α_s) 250-2500nm	0,08
Thermal emittance (300K)- (ϵ) 3000-16700nm	0,93
Solar transmittance (α) 250-2500nm	0,33
ESD grid	
ESD grid dimension	108 x 108 mm
Electrical Resistance of grid filament	8 – 9 Ω

Options

- The fabric is also available with a VDA (Vacuum Deposited Aluminium) coating on the backside
- Can be combined with other materials to build Multi-layer Insulations or thermal protective blanket
- Manufacturing of pre-cut sheets based on customer input
- We can provide design support or take over the design and qualification testing