



Product Data

GRADE: GBULS

GENERAL DESCRIPTION

GBULS is a flame retardant glass reinforced polyester moulding compound which is moulded by the application of heat and pressure to give parts with good mechanical and electrical resistance properties.

SPECIAL CHARACTERISTICS

GBULS is especially suitable for applications where the spread of fire and the consequent generation of smoke must be minimised. No additives are included which would generate toxic fumes on burning. Fire resistance and smoke suppression are superior to GBLs, allowing its more widespread use in confined areas. GBULS 7318 is fully compliant with London Underground Limited's Code Of Practice for "Grouped or Extensive Use".

It has also gained NFF 16-101 approval to class IO F1.

TYPICAL PROPERTIES OF MOULDINGS

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>UNITS</u>	<u>VALUE</u>
<u>Physical Properties:</u>			
Density	BS2782 Method 620A	g/cm ³	2.04
Mould shrinkage	BS2782 Method 640A ISO 2577-75	%	0.07
Water absorption	BS2782 Method 430A ISO 62-80	mg	30
<u>Thermal Properties:</u>			
After shrinkage (48 hr at 100°C)	BS2782 Method 640A ISO 2577-75	%	None
Temperature of deflection under load (1.8 MPa)	BS2782 Method 121A	°C	> 200
Deflection under load at 100°C	BS2782 Method 121A	mm	0.8
<u>Flame Retardant Properties:</u>			
Oxygen index	BS2782 Method 4 ISO 4589	%	> 100 non-burning in pure oxygen
Flammability temperature index	BS6853 Appendix A	°C	> 360
Smoke emission, 3 metre cube, A ₀	BS6853 Method B.5.1	m ² /g	< 0.005
Toxic fume emission	LUL 6220 05 601	-	Compliant
Fire propagation index, I	BS476: Part 6	-	8.5
Surface spread of flame	BS476: Part 7	-	Class 1
NF F 16-101		Class	IO F1
UL Rating (by IDI tests)	UL94 @ 1.5 mm.		VO
<u>Mechanical Properties:</u>			
Charpy impact strength (notched)	BS2782 Method 359 ISO 179-82	kJ/m ²	20
Flexural strength	BS2782 Method 335A ISO 178-75	MPa	60
Flexural modulus	BS2782 Method 335A ISO 178-75	GPa	10
Tensile strength	BS2782 Method 320E ISO 527	MPa	20
<u>Electrical Properties:</u>			
Electric strength at 90°C	BS2782 Method 220 ISO 243	MV/m	10.0
Arc resistance	ASTM D495-73	s	240
Insulation resistance	BS2782 Method 204C ISO 167	log ₁₀ ohms	10.0
Tracking resistance	BS5901	V	> 600
Surface resistivity	BS2782 Method 207A	log ₁₀ ohms	12.0
Volume resistivity	BS2782 Method 231A	log ₁₀ ohms cm	13.0

Before use consult the appropriate Industrial Dielectrics (UK) Ltd. Health and Safety Data.

The values quoted in the properties table have been obtained by standard test methods, using compression moulded specimens.

They provide useful comparisons between types but do not necessarily indicate the performance of commercial parts, which may differ due to a number of factors, including colour, component design, mould design, and method of manufacture and moulding.

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