

MALAT 37G100 - 4205

Polybutylene Terephthalate

AD majoris

Message:

MALAT 37G100 - 4205 is a 10 % glass fibre reinforced polybutylene terephthalat, intended for injection moulding. The product is available in black and natural (MALAT 37G100) but other colours can be provided on request
They combine high mechanical, thermal and electrical properties with excellent chemical resistance and dimensional stability

APPLICATIONS

MALAT 37G100 - 4205 is intended for the injection moulding of electrical components and automotive applications including interior, exterior and electrical and mechanical systems, such as:

- Electrical appliance components
- Switches and connector housings
- Dashboard components
- Door handles and pillar trim

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
Features	Good dimensional stability		
	Recyclable materials		
	Good electrical performance		
	Good chemical resistance		
Uses	Handle		
	Electrical components		
	Electrical housing		
	Home appliance components		
	Automotive Electronics		
	Car interior parts		
	Automotive exterior parts		
Appearance	Black		
	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.38	g/cm ³	ISO 1183
Molding Shrinkage ¹			
Vertical flow direction: 3.00mm	1.2	%	
Flow direction: 3.00mm	0.80	%	
Water Absorption			ISO 62
23°C, 24 hr	0.050	%	ISO 62

Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4800	MPa	ISO 527-2
Tensile Stress (Break)	100	MPa	ISO 527-2
Tensile Strain (Break)	4.0	%	ISO 527-2
Flexural Modulus	4600	MPa	ISO 178
Flexural Stress ²	195	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	7.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	36	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	212	°C	ISO 75-2/B
1.8 MPa, not annealed	202	°C	ISO 75-2/A
Ball Pressure Test (215°C)	Pass		NF C 62-411
Melting Temperature (DSC)	225	°C	ISO 3146
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	ASTM D257
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength (2.00 mm)	39	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.20		ASTM D150
1 kHz	3.20		ASTM D150
1 MHz	3.10		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	1.0E-3		ASTM D150
1 kHz	1.0E-3		ASTM D150
1 MHz	0.014		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Glow Wire Ignition Temperature (2.00 mm, 30 sec)	650	°C	IEC 60695-2-13
Oxygen Index	20	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Processing (Melt) Temp	255 - 270	°C	
Mold Temperature	80.0 - 120	°C	
Injection Rate	Fast		
Injection instructions			
Back pressure: Moderate			
NOTE			

- | | |
|----|--------------------|
| 1. | Plate 100x100x3 mm |
| 2. | at Break |

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

