

Datasheet

Description:

AKROLEN® PP GFM 25/15 black (1415) is a 25% glass fibre reinforced, 15% mineral-filled polypropylene with good surface and dimensional stability

Applications

Applications are mainly thin wall housings for electronic parts in the automotive industry with operation temperatures up to 100°C

Typical values	Test specification	Method	Unit	Value d.a.m.
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Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	6500
Stress at break	50 mm/min	ISO 527-2	MPa	75
Strain at break	50 mm/min	ISO 527-2	%	3,5
Flexural modulus	2 mm/min	ISO 178	MPa	6600
Flexural strength	2 mm/min	ISO 178	MPa	105
Flexural strain at break	2 mm/min	ISO 178	%	3,6
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	42
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m ²	45
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	11
Izod notched impact strength	23°C	ISO 180/1A	kJ/m ²	10
Ball indentation hardness	358/30	ISO 2039-1	MPa	100

Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	> 2E + 11
Comparative tracking index	test solution A	IEC 60112		600
Dielectric strength	3 mm	IEC 60243	kV/mm	18

Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	167
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	150
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	163
Coeff. of linear therm. expansion, parallel	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,2
Coeff. of linear therm. expansion, normal	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	1,25

Flammability

Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class			HB		
GWFI		IEC 60695-2-12	°C				750	
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302						+

General Properties

Density	23°C	ISO 1183	g/cm ³	1,21
Content reinforcement/Content Filler		ISO 1172	%	40

Rheological Properties

MVR	230/2,16	ISO 1133	cm ³ /10min	13,5
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Processing

Molding shrinkage	flow	ISO 294-4	%	0,4-0,5
Molding shrinkage	transverse	ISO 294-4	%	0,7-0,8