Celanese
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CELANEX® 4309AR

CELANEX® PBT

Celanex 4309AR is a 30% glass reinforced PBT with enhanced resistance to hydrolysis, alkaline environments and salt water spray.

Product information

Resin Identification	PBT-I-GF30	ISO 1043
Part Marking Code	>PBT-I-GF30<	ISO 11469

Rheological properties

Melt mass-flow rate	13	g/10min	ISO 1133
Melt mass-flow rate, Temperature	265	°C	
Melt mass-flow rate, Load	5	kg	
Moulding shrinkage range, parallel	0.3 - 0.6	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.4 - 1.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	8100	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3	%	ISO 527-1/-2
Flexural modulus	7600	MPa	ISO 178
Flexural strength	150	MPa	ISO 178
Charpy impact strength, 23°C	45	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	50	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	8.7	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	9	kJ/m²	ISO 180/1A
Izod impact strength, 23°C	40	kJ/m²	ISO 180/1U
Hardness, Rockwell, M-scale	62		ISO 2039-2
Poisson's ratio	0.34[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	191	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	217	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	23	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	95	E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	IEC 60695-11-10

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Physical/Other properties

Density	1440	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	250	°C
Min. melt temperature	240	°C
Max. melt temperature	260	°C
Screw tangential speed	0.1 - 0.3	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	130	°C
Ejection temperature	185	°C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Hydrolysis resistant

Additional information

Processing Notes

Pre-Drying

4 Hrs. at 250F, <0.02% moisture

Automotive

OEM	ADDITIONAL INFORMATION
Honda	Validated for Strut sensor by HGT

Revised: 2025-05-16 Source: Celanese Materials Database