

Product Texts

Partially aromatic, glassfiber reinforced polyphthalamide for injection molding with strong mechanical properties especially at elevated temperatures, good long-term thermal stability and outstanding chemical resistance for highly stressed parts. The product can be characterized as compound with high toughness, stiffness, extremely low water absorption and outstanding dimensional stability. It features high flowability and allows filling of complex parts with thin wall thickness. The product is easily processable with excellent melt stability.

Markets & applications

Automotive: Fuel system, cooling system, powertrain, Auto E&E, sensors, pumps, fuel cell

E&E: Connectors

Consumer goods: Home appliances, consumer electronics

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.0 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	10500 / 10000	MPa	ISO 527
^[C] Stress at break	190 / 150	MPa	ISO 527
^[C] Strain at break	2.5 / 1.8	%	ISO 527
^[C] Charpy impact strength, +23°C	65 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	60 / -	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	9 / -	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	9 / -	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	300 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	120 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	270 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	280 / *	°C	ISO 306
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	2 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.9 / *	%	Sim. to ISO 62
^[C] Density	1370 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	100 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	330	°C	ISO 294
Injection Molding, mold temperature	140	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	8	h	-
Processing humidity	≤0.05	%	-
Melt temperature	320 - 340	°C	-
Mold temperature	100 - 160	°C	-

Characteristics

Processing

Injection Molding

Features

Melt Strength, Thermal Stability

Delivery form

Pellets, Natural Color

Chemical Resistance

General Chemical Resistance

Special Characteristics

Heat stabilized or stable to heat

Regional Availability

North America, Europe

Other text information

Injection molding

PREPROCESSING

Pre/Post-processing, max. allowed water content: .05 %

Pre/Post-processing, Pre-drying, Temperature: 120 °C

Pre/Post-processing, Pre-drying, Time: 8 h

PROCESSING

injection molding, Melt temperature, range: 320 - 340 °C

injection molding, Melt temperature, recommended: 330 °C

injection molding, Mold temperature, range: 125 - 170 °C

injection molding, Mold temperature, recommended: 140 °C

injection molding, Dwell time, thermoplastics: 5 min