Celanese
The chemistry inside innovation™

CELANEX® 2302 GV1/45

CELANEX® PBT

Celanex 2302 GV1/45 is a 45% glass fiber reinforced Polybutylene terephthalate polymer blend with PET, which provides excellent stiffness and good surface appearance.

Product information

Resin Identification	(PBT+PET)-GF45	ISO 1043
Part Marking Code	>(PBT+PET)-GF45<	ISO 11469

Rheological properties

Melt volume-flow rate	7	cm^3/10min	ISO 1133
Temperature	509	°F	
Load	4.76	lb	
Molding shrinkage range, parallel	0.1 - 0.2	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.3 - 0.7	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2.32E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	24700	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.8	%	ISO 527-1/-2
Charpy notched impact strength, 23°C	4.99	$ftlb/in^2$	ISO 179/1eA
Charpy notched impact strength, -30°C	4.99	$ftlb/in^2$	ISO 179/1eA
Ball indentation hardness, H 961/30	34800	psi	ISO 2039-1

Thermal properties

Temperature of deflection under load, 1.8 MPa	401	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.08	E-4/°F	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.0315	in	IEC 60695-11-10

Physical/Other properties

Humidity absorption, 2mm	0.15	%	Sim. to ISO 62
Water absorption, 2mm	0.4	%	Sim. to ISO 62
Density	0.0606	lb/in^3	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	248	°F
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	509	°F
Min. melt temperature	491	°F
Max. melt temperature	527	°F
Max. screw tangential speed	0.1 - 0.3	m/s
Mold Temperature Optimum	212	°F

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Min. mold temperature	194 °F
Max. mold temperature	266 °F
Back pressure	435 psi

Automotive

OEM	ADDITIONAL INFORMATION
General Motors	Jet Black; Special Parts Appproval - see your CE Account Representative for fuether details.

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	Heat stabilized or stable to heat, High Gloss

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

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