

CELANEX® 2302 GV1/45 - PBT

Description

PBT + PET, 45% glass filled, high gloss

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

Physical properties	Value	Unit	Test Standard
Density	105	lb/ft ³	ISO 1183
Melt volume rate, MVR	7	cm ³ /10min	ISO 1133
MVR temperature	509	°F	ISO 1133
MVR load	4.76	lb	ISO 1133
Molding shrinkage, parallel (flow)	0.1 - 0.2	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.3 - 0.7	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.4	%	Sim. to ISO 62
Humidity absorption, 23°C/50%RH	0.15	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
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	ft-lb/in ²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.99	ft-lb/in ²	ISO 179/1eA
Ball indentation hardness, 30s	34800	psi	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	401	°F	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.0833	E-4/°F	ISO 11359-2
Flammability at thickness h	HB	class	UL 94
thickness tested (h)	0.0315	in	UL 94

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	3 - 4	h
Drying temperature	248 - 284	°F

Temperature	Value	Unit
Hopper temperature	68 - 122	°F
Feeding zone temperature	446 - 464	°F
Zone1 temperature	482 - 500	°F
Zone2 temperature	482 - 500	°F
Zone3 temperature	500 - 518	°F
Zone4 temperature	500 - 518	°F
Nozzle temperature	509 - 527	°F
Melt temperature	509 - 527	°F
Mold temperature	194 - 248	°F
Hot runner temperature	509 - 527	°F

Pressure	Value	Unit
Back pressure max.	30	bar



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Speed	Value
Injection speed	high

Characteristics

Special Characteristics	Auto spec approved, Heat resistant, High gloss
Product Categories	Glass reinforced, Polymer blend
Processing	Injection molding
Delivery Form	Pellets
Additives	Release agent

