Durethan® DPAKV50H2.0EF 900116

PA66-GF50 Envalior

Product Texts

Injection Molding, 50% Glass Reinforced, Heat Stabilized, Improved flow

ISO 1043 PA66-GF50

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.4 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.8 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**15200 / 10000**	MPa	ISO 527
[C] Stress at break	**195 / 135**	MPa	ISO 527
[C] Strain at break	**2.5 / 4**	%	ISO 527
Flexural modulus, 23°C	**14000 / 9500**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**80 / 80**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**75 / 65**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**15 / 20**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**13 / 13**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**75 / 75**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**15 / 20**	kJ/m²	ISO 180/1A
Izod notched impact strength	**13 / 13**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
[C] Puncture - maximum force, +23°C	**1100 / -**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**1000 / -**	N	ISO 6603-2
[C] Puncture energy, +23°C	**4.2 / -**	J	ISO 6603-2
[C] Puncture energy, -30°C	**3.4 / -**	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**261 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**245 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**250 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**15 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**85 / ***	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**4.7 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.3 / ***	%	Sim. to ISO 62
[C] Density	**1540 / -**	kg/m³	ISO 1183
Bulk density	**700**	kg/m³	-

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**290**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2 - 6**	h	-
Processing humidity	**≤0.12**	%	-
Melt temperature	**280 - 300**	°C	-

Mold temperature	**80 - 120**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Heat stabilized or stable to heat

Delivery form
Pellets

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding
PREPROCESSING
Residual moisture content: 0.03 - 0.12%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING
Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C