Durethan® BKV20FN01 000000

PA6-GF18 FR(40+30) Envalior

Product Texts

Injection Molding, 18% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6-GF18 FR(40+30)

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**37 / ***	cm³/10min	ISO 1133
Temperature	**260 / ***	°C	-
Load	**5 / ***	kg	-
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.6 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**7960 / 4500**	MPa	ISO 527
[C] Stress at break	**105 / 60**	MPa	ISO 527
[C] Strain at break	**3 / 4.9**	%	ISO 527
Flexural modulus, 23°C	**7200 / 4200**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**50 / 60**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**- / 12**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**40 / 45**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**10 / 12**	kJ/m²	ISO 180/1A

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**222 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**200 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**218 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**30 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**90 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**V-0 / ***	class	IEC 60695-11-10
[C] Burning Behav. 5V at thickness h	**5VA / ***	class	IEC 60695-11-20
Thickness tested	**3.0 / ***	mm	-
[C] Oxygen index	**34 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4 / 9**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.5 / 4**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**165 / 1250**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**170 / 775**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / 1.2E11**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 3.7E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**36 / 35**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**5.3 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.6 / ***	%	Sim. to ISO 62
[C] Density	**1340 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**260**	°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	**≤0.07**	%	-
Melt temperature	**250 - 270**	°C	-
Mold temperature	**80 - 100**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant, Halogen-free, 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 - 0.07%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING
Melt temperature (Tmin - Tmax): 250 - 270 °C

Mold temperature: 80 - 100 °C