Durethan® B30SFN31 000000

PA6 FR(30) Envalior

Product Texts

Injection Molding, Unreinforced, Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6 FR(30)

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**1.0 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.9 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3500 / 1200**	MPa	ISO 527
[C] Yield stress	**80 / 45**	MPa	ISO 527
[C] Yield strain	**3.9 / 25**	%	ISO 527
[C] Nominal strain at break	**4.9 / -**	%	ISO 527
Flexural modulus, 23°C	**3500 / 1300**	MPa	ISO 178
Flexural strength	**120 / 45**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**70 / N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**65 / 80**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**- / 12**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**- / 10**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**50 / -**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**10 / 11**	kJ/m²	ISO 180/1A

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	**240 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**75 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**185 / ***	°C	ISO 75-1/-2
Vicat softening temperature, B	**203 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**80 / ***	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
Thickness tested	**1.5 / ***	mm	-
Yellow Card available	**yes / ***	-	-
Burning behav. at thickness h	**V-0 / ***	class	IEC 60695-11-10
Thickness tested	**0.4 / ***	mm	-
Yellow Card available	**yes / ***	-	-
[C] Oxygen index	**36 / ***	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**0.4**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (2)	**0.75**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (3)	**1.5**	mm	-
Glow Wire Ignition Temperature (GWIT)	**960**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**0.4**	mm	-
Glow Wire Ignition Temperature (GWIT)	**960**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**0.75**	mm	-
Glow Wire Ignition Temperature (GWIT)	**960**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**1.5**	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.6 / -**	-	IEC 62631-2-1

[C] Relative permittivity, 1MHz	**3.5 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**140 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**195 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / -**	Ohm*m	IEC 62631-3-1
[C] Electric strength	**23 / -**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**8.5 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.7 / ***	%	Sim. to ISO 62
[C] Density	**1170 / -**	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	**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	**255 - 270**	°C	-
Mold temperature	**80 - 100**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Special Characteristics
Flame retardant, Halogen-free, Heat stabilized or stable to heat

Applications
Electrical and Electronical

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): 255 - 270 °C

Mold temperature: 80 - 100 °C