Durethan® AKV30GH2.0 900051 SR1

PA66-GF30 Envalior

Injection Molding, 30% Glass Reinforced, Heat Stabilized, Excellent Surface Properties

ISO 1043 PA66-GF30

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	9600 / 6500	MPa	ISO 527
Stress at Break	180 / 120	MPa	ISO 527
Strain at Break	3 / 6	%	ISO 527
Impact Strength (Charpy), +23°C	70 / 75	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	60 / 60	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	10 / 15	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	740 / 920	N	ISO 6603-2
Puncture - maximum force, -30°C	680 / -	N	ISO 6603-2
Puncture energy, +23°C	2.1 / 3.6	J	ISO 6603-2
Puncture energy, -30°C	1.9 / -	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	220 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	250 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Oxygen index	26 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4 / 8	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / 4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	90 / 1800	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	170 / 600	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric Strength	31 / 28	kV/mm	IEC 60243-1
Comparative tracking index	375 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	138 / *	cm³/g	ISO 307, 1157, 1628

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

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

Additives
Release agent

Delivery form
Pellets

Special Characteristics
Heat aging stabilized

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

Disclaimer