Durethan® AKV30FN04LT 904040

(PA66+PA6)-GF30 FR(40) Envalior

Injection Molding, 30% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized, Laser Transparent Black

ISO 1043 (PA66+PA6)-GF30 FR(40)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	10500 / 6500	MPa	ISO 527
Stress at Break	138 / 87	MPa	ISO 527
Strain at Break	2.9 / 5.7	%	ISO 527
Impact Strength (Charpy), +23°C	65 / 70	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	60 / 60	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 11	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	10100 / 6300	MPa	ISO 178
Flexural strength	230 / 150	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 12	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	- / 10	kJ/m²	ISO 180/1A
Temperature	-30	°C	-
Impact Strength (Izod), 23°C	55 / 65	kJ/m²	ISO 180/1U
Ball Indentation Hardness	207 / -	MPa	ISO 2039-1

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)	230 / *	°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	70 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0 / *	class	UL 94
Burning Behav. 5V at Thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
Oxygen index	34 / *	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-
Glow Wire Ignition Temperature)	750	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature)	750	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.75	mm	-
Glow Wire Ignition Temperature)	750	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4 / 7.3	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.4 / 3.9	-	IEC 62631-2-1
Dissipation Factor, 100Hz	200 / 1090	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	175 / 555	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / 2.7E11	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 2.7E14	Ohm	IEC 62631-3-2
Electric Strength	40 / 36	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	4.4 / *	%	Sim. to ISO 62
Humidity absorption	1.4 / *	%	Sim. to ISO 62
Density	1420 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°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	≤0.07	%	-
Melt temperature	265 - 285	°C	-
Mold temperature	80 - 100	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant, Halogen-free, Heat aging stabilized

Delivery form
Pellets, Black

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): 265 - 285 °C

Mold temperature: 80 - 100 °C

Disclaimer