

Durethan® BKV35HTS
PA6-GF35

Envalior

PA 6, injection molding grade, 35 % glass fibers, very good heat-ageing resistance

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	11500 / 6300	MPa	ISO 527
Stress at Break	190 / 85	MPa	ISO 527
Strain at Break	3 / 8	%	ISO 527
Impact Strength (Charpy), +23°C	75 / 85	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	65 / 55	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	15 / 20	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	10 / -	kJ/m ²	ISO 179/1eA
Puncture energy, +23°C	9 / 13	J	ISO 6603-2
Puncture energy, -30°C	7 / 5	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-
Oxygen index	23 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	5 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	450 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	265 / -	E-4	IEC 62631-2-1
Volume Resistivity	7E12 / -	Ohm*m	IEC 62631-3-1
Comparative tracking index	425 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6.5 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m ³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1200	kg/m ³	-
Thermal Conductivity of Melt	0.236	W/(m K)	-
Spec. heat capacity of melt	2050	J/(kg K)	-
Eff. thermal diffusivity	9.61E-8	m ² /s	-
Ejection temperature	140	°C	-

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Characteristics

Durethan® BKV35HTS

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Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Injection Molding

PREPROCESSING

Max. Water content: 0.1 %

Drying temperature: 80 °C

Drying time:

Dry air dryer 2-20 h (will depend on the initial moisture content)

PROCESSING

Melt temperature: 270 - 290 °C

Mold temperature: 80 - 120 °C