

**Durethan® AKV50H3.0 000000**  
**PA66-GF50**

Envalior

Injection Molding, 50% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF50

Rheological properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	16000 / -	MPa	ISO 527
Stress at Break	230 / -	MPa	ISO 527
Strain at Break	2.5 / -	%	ISO 527
Impact Strength (Charpy), +23°C	100 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Impact Strength (Charpy), -30°C	100 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	17 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	15 / -	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Melting Temperature (10°C/min)	262 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	250 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	250 / *	°C	ISO 75-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 100Hz	5 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.4 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	250 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	230 / -	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	38 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Density	1570 / -	kg/m <sup>3</sup>	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Viscosity number	146 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
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**

**Liability Exclusion**

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