

Durethan[®] AM440H3.0

PA66–MX40

40% Mineral Reinforced, Injection Molding, Heat Stabilized, Low Warpage

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>RHEOLOGICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Molding shrinkage (parallel)	1.3 / *	%	ISO 294–4
Molding shrinkage (normal)	1.1 / *	%	ISO 294–4
<i>MECHANICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Tensile modulus	6100 / 2700	MPa	ISO 527–1/–2
Stress at break	85 / 38	MPa	ISO 527–1/–2
Strain at break	2.5 / 10	%	ISO 527–1/–2
Flexural modulus	5800 / 2700	MPa	ISO 178
Flexural strength	140 / 70	MPa	ISO 178
Tensile modulus (200°C)	772	MPa	ISO 527–1/–2
Charpy impact strength (+23°C)	40 / 65	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	45 / 35	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 180/1A
<i>THERMAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Melting temperature (10°C/min)	265 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	110 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	230 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.6 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.8 / *	E–4/°C	ISO 11359–1/–2

Property Data

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<i>ELECTRICAL PROPERTIES</i>			
Comparative tracking index	600 / –	V	IEC 60112
<i>OTHER PROPERTIES</i>			
Water absorption	4.5 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1490 / –	kg/m ³	ISO 1183
<i>PROCESSING RECOMMENDATIONS</i>		<i>VALUE</i>	
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2–6	h	
Residual moisture content	0.03–0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	280–300	°C	
Mold temperature	80–120	°C	