

# Durethan<sup>®</sup> ECOAKV30H2.0

## PA66–GF30

30% Glass Reinforced, Injection Molding, Heat Stabilized, Recycled Content

### Sustainability

Mass balanced  
 Recycled based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	0.39 / *	%	ISO 294–4
Molding shrinkage (normal)	0.93 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	10000 / 6000	MPa	ISO 527–1/–2
Stress at break	175 / 110	MPa	ISO 527–1/–2
Strain at break	3 / 6	%	ISO 527–1/–2
Flexural modulus	9200 / 5700	MPa	ISO 178
Flexural strength	270 / 180	MPa	ISO 178
Charpy impact strength (+23°C)	75 / 85	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	60 / 60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 14	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	10 / 15	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	263 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	242 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	250 / *	°C	ISO 75–1/–2

## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Coeff. of linear therm. expansion (parallel)	0.3 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.9 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	23 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-12

### *ELECTRICAL PROPERTIES*

#### *DRY / COND*

Relative permittivity (100Hz)	4 / 12	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4	-	IEC 62631-2-1
Dissipation factor (100 Hz)	120 / 2700	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	190 / 800	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	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	475 / -	V	IEC 60112

### *OTHER PROPERTIES*

#### *DRY / COND*

Water absorption	5.5 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1360 / -	kg/m³	ISO 1183

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b>MATERIAL SPECIFIC PROPERTIES</b>			
Viscosity number	146 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628
<b>PROCESSING RECOMMENDATIONS</b>			
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	