

Durethan[®] ECOBKV20FN20

PA6–GF20 FR(30)

Injection Molding, 20% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized, Recycled Content

Print Date: 2024–12–10

Sustainability

Mass balanced
 Recycled based

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.6 / *	%	ISO 294–4
Molding shrinkage (normal)	0.7 / *	%	ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	6100 / 3100	MPa	ISO 527–1/–2
Stress at break	100 / 55	MPa	ISO 527–1/–2
Strain at break	3 / 15	%	ISO 527–1/–2
Flexural modulus	6100 / 3200	MPa	ISO 178
Flexural strength	170 / 90	MPa	ISO 178
Charpy impact strength (+23°C)	35 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	30 / –	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 / 11	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	222 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	185 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75–1/–2

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Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Coeff. of linear therm. expansion (parallel)	0.4 / *	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.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	26.9 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES

DRY / COND

Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength	32 / -	kV/mm	IEC 60243-1
Comparative tracking index	500 / -	V	IEC 60112

OTHER PROPERTIES

DRY / COND

Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1310 / -	kg/m³	ISO 1183

PROCESSING RECOMMENDATIONS

VALUE

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.07	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250-270	°C	
Mold temperature	80-100	°C	
admissible residence time at Tmax	<5	min	

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