

Durethan BKV 30 H2.0 000000

PA 6, 30 % glass fibers, injection molding, heat-aging stabilized

ISO / ASTM

ISO Shortname: ISO 1874-PA 6, MHR, 14-100, GF30

Property	Test Condition	Unit	Standard	guide value	
				dry as molded	conditioned
Mechanical properties (23 °C/50 % r. h.)					
Tensile modulus	1 mm/min	lb/in ²	ASTM D 638	1334000	812000
Tensile elongation at break	-	%	ASTM D 638	3.0	6.0
Tensile stress at break	-	lb/in ²	ASTM D 638	26100	14500
Izod notched impact strength	73 °F, 0.125 in	ft·lb/in	ASTM D 256	2.2	2.8
Izod notched impact strength	-40 °F; 0.125 in	ft·lb/in	ASTM D 256	1.9	1.9
Flexural strength	-	lb/in ²	ASTM D 790	40600	24600
Flexural modulus	-	lb/in ²	ASTM D 790	1204000	725000
Thermal properties					
Deflection temperature under load, Unannealed	66 psi; 0.157 in	°F	ASTM D 648	419	
Deflection temperature under load, Unannealed	264 psi; 0.157 in	°F	ASTM D 648	392	
UL94 Flame Class	Thickness tested: 0.83 mm	Class	UL 94	HB	
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	HB	
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	HB	
Relative temperature index, mechanical with impact	Thickness tested: 0.83 mm	°C	UL 746B	90	
Relative temperature index, mechanical with impact	Thickness tested: 1.5 mm	°C	UL 746B	95	
Relative temperature index, mechanical without impact	Thickness tested: 0.83 mm	°C	UL 746B	130	
Relative temperature index, mechanical without impact	Thickness tested: 1.5 mm	°C	UL 746B	130	
Relative temperature index, electrical	Thickness tested: 0.83 mm	°C	UL 746B	120	
Relative temperature index, electrical	Thickness tested: 1.5 mm	°C	UL 746B	120	
Electrical properties (23 °C/50 % r. h.)					
Dissipation factor	50 Hz	-	IEC 60250	0.005	0.5
Dissipation factor	1 MHz	-	IEC 60250	0.015	0.16
Volume resistivity		Ohm·m	IEC 60093	1E13	1E10
Surface resistivity		Ohm	IEC 60093	1E14	1E12
Dielectric strength	0.118 in	V/mil	IEC 60243-1	1016	889
Arc resistance, Tungsten electrodes		s	ASTM D 495		76
Dielectric constant, Tinfoil electrodes	50 Hz	-	IEC 60250	4.0	15
Dielectric constant, Tinfoil electrodes	1 MHz	-	IEC 60250	4.0	5.0
Comparative tracking index CTI		V	ASTM D 3638		400
Other properties (23 °C)					
Density		lb/in ³	ASTM D 792	0.049	
Specific gravity		-	ASTM D 792	1.36	

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Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the coloring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

Conditioning

Conditioning in accordance with ISO 1110 (70 °C; 62 % r.h.)

