

Nilamid A3 H ZE natural



PA66, unfilled, superb low temperature impact resistance

	Properties	Conditions	Unit	Standard	Values
Physical	Density	23°C	g/cm³	ISO 1183, ASTM D792	1,07
	Mould shrinkage (parallel)	23°C	%	Euronil	1,3
	Mould shrinkage (normal)	23°C	%	Euronil	1,3
	Moisture absorption in water	23°C - 24h	%	ISO 62 (based on)	0,9
		23°C saturation	%	ISO 62 (based on)	6,5
Mechanical	Notched Izod Impact Strength	23°C	KJ/m²	ISO 180/1A	90
		-30°C	KJ/m²	ISO 180/1A	25
	Unnotched Charpy Impact Strength	23°C	KJ/m²	ISO 179	n.r./n.b.
		-30°C	KJ/m²	ISO 179	n.r./n.b.
	Notched Charpy Impact Strength	23°C	KJ/m²	ISO 179	60
		-30°C	KJ/m²	ISO 179	20
	Tensile yield stress	23°C	MPa	ISO 527, ASTM D638	50
	Tensile modulus	23°C	MPa	ISO 527, ASTM D638	—
	Yield strain	23°C	%	ISO 527, ASTM D638	>10
	Strain at break	23°C	%	ISO 527, ASTM D638	>80
	Flexural yield strength	23°C	MPa	ISO 178, ASTM D790	65
		90°C	MPa	ISO 178, ASTM D790	15
	Flexural Modulus	23°C	MPa	ISO 178, ASTM D790	1800
		90°C	MPa	ISO 178, ASTM D790	300
Thermal	VICAT - softening temperature	9.8 N	°C	ISO 306, ASTM D1525	250
		49 N	°C	ISO 306, ASTM D1525	195
	HDT - temperature of deflection under load	0.45 N/mm²	°C	ISO 75, ASTM D 648	200
		1.82 N/mm²	°C	ISO 75, ASTM D 648	60
	Heat resistance - Ball test	125°C		IEC 309	OK
		165°C		IEC 309	OK
	Continuous service temperature	20000 h	°C	IEC 216	65
Electrical	Dielectric Strength	2 mm	KV/mm	ASTM D149	20
	CTI - Comparative Tracking Index	3.2 mm, sol. A	V	IEC 112, UL 746A	600
		3.2 mm, sol. B	V	IEC 112, UL 746A	600M
Flame behaviour	Oxygen Index		%	ASTM D2863	20
	Flammability rating	3.2 (1.6) mm		UL 94	HB
		0.8 (0.4) mm		UL 94	HB
	Needle test	2.0 (1.0) mm		IEC 695-2-2	—
	Glow wire Flammability Index	3.2 (0.8) mm	°C	IEC 695-2-12	550 (550)
	Glow wire Ignition Temperature	3.2 (0.8) mm	°C	IEC 695-2-13	—
	Flammability rating	355x100x1 mm		FMVSS No.302	—

Technical Data Sheet

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