

Nilamid A G10 FR PH1 natural



PA66, 50% glass fibre reinforced, flame retardant, with red phosphorous, low phosphate release

	Properties	Conditions	Unit	Standard	Values
Physical	Density	23°C	g/cm ³	ISO 1183, ASTM D792	1,58
	Mould shrinkage (parallel)	23°C	%	Euronil	0,3
	Mould shrinkage (normal)	23°C	%	Euronil	0,5
	Moisture absorption in water	23°C - 24h	%	ISO 62 (based on)	0,5
		23°C saturation	%	ISO 62 (based on)	2,5
Mechanical	Notched Izod Impact Strength	23°C	KJ/m ²	ISO 180/1A	13,5
		-30°C	KJ/m ²	ISO 180/1A	11
	Unnotched Charpy Impact Strength	23°C	KJ/m ²	ISO 179	55
		-30°C	KJ/m ²	ISO 179	46
	Notched Charpy Impact Strength	23°C	KJ/m ²	ISO 179	5
		-30°C	KJ/m ²	ISO 179	3,5
	Tensile yield stress	23°C	MPa	ISO 527, ASTM D638	210
	Tensile modulus	23°C	MPa	ISO 527, ASTM D638	15000
	Yield strain	23°C	%	ISO 527, ASTM D638	—
	Strain at break	23°C	%	ISO 527, ASTM D638	1,5
	Flexural yield strength	23°C	MPa	ISO 178, ASTM D790	340
		90°C	MPa	ISO 178, ASTM D790	185
	Flexural Modulus	23°C	MPa	ISO 178, ASTM D790	14000
		90°C	MPa	ISO 178, ASTM D790	7000
Thermal	VICAT - softening temperature	9.8 N	°C	ISO 306, ASTM D1525	260
		49 N	°C	ISO 306, ASTM D1525	254
	HDT - temperature of deflection under load	0.45 N/mm ²	°C	ISO 75, ASTM D 648	261
		1.82 N/mm ²	°C	ISO 75, ASTM D 648	255
	Heat resistance - Ball test	125°C		IEC 309	OK
		165°C		IEC 309	OK
Electrical	Continuous service temperature	20000 h	°C	IEC 216	125
	Dielectric Strength	2 mm	KV/mm	ASTM D149	21
	CTI - Comparative Tracking Index	3.2 mm, sol. A	V	IEC 112, UL 746A	550
		3.2 mm, sol. B	V	IEC 112, UL 746A	550M
Flame behaviour	Oxygen Index		%	ASTM D2863	32
	Flammability rating	3.2 (1.6) mm		UL 94	V0 (V0)
		0.8 (0.4) mm		UL 94	HB
	Needle test	2.0 (1.0) mm		IEC 695-2-2	OK (OK)
	Glow wire Flammability Index	3.2 (0.8) mm	°C	IEC 695-2-12	960 (960)
	Glow wire Ignition Temperature	3.2 (0.8) mm	°C	IEC 695-2-13	—
	Flammability rating	355x100x1 mm		FMVSS No.302	SE

Technical Data Sheet

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