

Polynil P50 FI natural



Plastics Division

PA66, unfilled, internally lubricated, 2.7 viscosity, fast cycling, FDA approved

	Properties	Conditions	Unit	Standard	Values
Physical	Density	23°C	g/cm³	ISO 1183, ASTM D792	1,14
	Mould shrinkage (parallel)	23°C	%	Euronil	1,3
	Mould shrinkage (normal)	23°C	%	Euronil	1,4
	Moisture absorption in water	23°C - 24h	%	ISO 62 (based on)	1,5
		23°C saturation	%	ISO 62 (based on)	8,5
Mechanical	Notched Izod Impact Strength	23°C	KJ/m²	ISO 180/1A	5,5
		-30°C	KJ/m²	ISO 180/1A	4,5
	Unnotched Charpy Impact Strength	23°C	KJ/m²	ISO 179	n.r/n.b.
		-30°C	KJ/m²	ISO 179	-
	Notched Charpy Impact Strength	23°C	KJ/m²	ISO 179	6,0
		-30°C	KJ/m²	ISO 179	4,0
	Tensile yield stress	23°C	MPa	ISO 527, ASTM D638	81
	Tensile modulus	23°C	MPa	ISO 527, ASTM D638	2800
	Yield strain	23°C	%	ISO 527, ASTM D638	6,0
	Strain at break	23°C	%	ISO 527, ASTM D638	50
	Flexural yield strength	23°C	MPa	ISO 178, ASTM D790	120
		90°C	MPa	ISO 178, ASTM D790	30,0
	Flexural Modulus	23°C	MPa	ISO 178, ASTM D790	2600
		90°C	MPa	ISO 178, ASTM D790	-
Thermal	VICAT - softening temperature	9.8 N	°C	ISO 306, ASTM D1525	245
		49 N	°C	ISO 306, ASTM D1525	235
	HDT - temperature of deflection under load	0.45 N/mm²	°C	ISO 75, ASTM D 648	225
		1.82 N/mm²	°C	ISO 75, ASTM D 648	75
	Heat resistance - Ball test	125°C		IEC 309	OK
		165°C		IEC 309	OK
	Continuous service temperature	20000 h	°C	IEC 216	85
Electrical	Dielectric Strength	2 mm	KV/mm	ASTM D149	-
	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	-
Flame behaviour	Oxygen Index		%	ASTM D2863	28
	Flammability rating	3.2 (1.6) mm		UL 94	V2 (V2)
		0.8 (0.4) mm		UL 94	V2
	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	850 (750)
	Glow wire Ignition Temperature	3.2 (0.8) mm	°C	IEC 695-2-13	750 (775)
	Flammability rating	355x100x1 mm		FMVSS No.302	-

Technical Data Sheet

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