

VINPOL™ PA630GFH

30% Glass Filled, Heat Stabilized Polyamide 6

30% Glass Filled

Heat-Aging Stabilized

VINPOL PA630GFH is a 30% glass fiber filled, heat-aging stabilized polyamide 6 resin designed for injection molded applications.

Resin Property	Typical Value	Units	Test Method
*Molding shrinkage, parallel, 60x60x2; 280 °C / MT 80°C; 600 bar	0.24	%	ISO 294-4
*Molding shrinkage, transverse 60x60x2; 280 °C / MT 80°C; 600 bar	0.69	%	ISO 294-4
Post shrinkage, parallel 60x60x2; 120 °C, 4 hrs	0.07	%	ISO 294-4
Post shrinkage, transverse 60x60x2; 120 °C, 4 hrs	0.12	%	ISO 294-4
*Tensile Modulus, 1mm/min; Dry as Molded (**Conditioned)	9,800 (**6,100)	MPa	ISO 527-1,-2
*Tensile Stress at break, 5mm/min; Dry as Molded (**Conditioned)	180 (**105)	MPa	ISO 527-1,-2
*Tensile Strain at break, 5mm/min; Dry as Molded (**Conditioned)	3.8 (**6.0)	%	ISO 527-1,-2
*Tensile creep modulus, 1 hr, **Conditioned	**5,100	MPa	ISO 899-1
*Tensile creep modulus, 1000 hrs, **Conditioned	**4,100	MPa	ISO 899-1
*Charpy impact strength, 23°C; Dry as Molded (**Conditioned)	80 (**95)	kJ/m ²	ISO 179-1eU
*Charpy impact strength, -30°C; Dry as Molded (**Conditioned)	70 (**70)	kJ/m ²	ISO 179-1eU
*Charpy notched impact strength, 23°C; Dry as Molded (**Conditioned)	15 (**20)	kJ/m ²	ISO 179-1eA
*Charpy notched impact strength, -30°C; Dry as Molded (**Conditioned)	10 (**10)	kJ/m ²	ISO 179-1eA
Izod impact strength, 23°C; Dry as Molded (**Conditioned)	75 (**85)	kJ/m ²	ISO 180-1U
Izod impact strength, -30°C; Dry as Molded (**Conditioned)	70 (**80)	kJ/m ²	ISO 180-1U
Izod notched impact strength, 23°C; Dry as Molded (**Conditioned)	15 (**20)	kJ/m ²	ISO 180-1A
Izod notched impact strength, -30°C; Dry as Molded (**Conditioned)	10 (**10)	kJ/m ²	ISO 180-1A
Flexural modulus, 2mm/min; Dry as Molded (**Conditioned)	8,600 (**5,100)	MPa	ISO 178-A
Flexural strength, 2mm/min; Dry as Molded (**Conditioned)	280 (**170)	MPa	ISO 178-A
Flexural strain at flexural strength, 2mm/min; Dry as molded (**Conditioned)	4.0 (**6.0)	%	ISO 178-A

*Puncture Energy, 23°C; Dry as Molded	3	J	ISO 6603-2
*Puncture Energy, -30°C; Dry as Molded	3	J	ISO 6603-2
Ball indentation hardness; Dry as Molded (**Conditioned)	210 (**100)	N/mm ²	ISO 2039-1
*Melting Temperature, 10°C/min	222	°C	ISO 11357-1,-3
*Deflection Temperature under Load, 1.80MPa	200	°C	ISO 75-1,-2
*Deflection Temperature under Load, 0.45MPa	215	°C	ISO 75-1,-2
*Deflection Temperature under Load, 8.00MPa	110	°C	ISO 75-1,-2
Vicat Softening Point, 40N; 120°C/hr	>200	°C	ISO 306
*Coefficient of linear thermal expansion, parallel, 23 to 55°C	0.2	10 ⁻⁴ /K	ISO 11359-1,-2
*Coefficient of linear thermal expansion, transverse, 23 to 55°C	0.8	10 ⁻⁴ /K	ISO 11359-1,-2
*Burning behavior, 1.5mm	HB	Class	UL 94
*Burning behavior, 0.75mm	HB	Class	UL 94
Burning behavior US-FMVSS302	Passed		ISO 3795
*Oxygen Index, Method A	22	%	ISO 4589-2
Glow Wire Test (GWFI), 0.75mm	700	°C	IEC 60695-2-12
Glow Wire Test (GWFI), 1.5mm	700	°C	IEC 60695-2-12
Glow Wire Test (GWFI), 3.0mm	700	°C	IEC 60695-2-12
Glow Wire Test (GWIT), 0.75mm	750	°C	IEC 60695-2-13
Glow Wire Test (GWIT), 1.5mm	750	°C	IEC 60695-2-13
Glow Wire Test (GWIT), 3.0mm	750	°C	IEC 60695-2-13
*Relative permittivity, 100Hz, 23°C, 50% R.H.; Dry as molded (**Conditioned)	4.0 (**15)		IEC 60250
*Relative permittivity, 1MHz, 23°C, 50% R.H.; Dry as molded (**Conditioned)	4.0 (**5.0)		IEC 60250
*Dissipation factor, 100Hz, 23°C, 50% R.H.; Dry as molded (**Conditioned)	120 (**1,600)	10 ⁻⁴	IEC 60250
*Dissipation factor, 1MHz, 23°C, 50% R.H.; Dry as molded (**Conditioned)	190 (**1,000)	10 ⁻⁴	IEC 60250
*Volume resistivity.; Dry as molded (**Conditioned)	1E13 (**1E10)	Ohm-m	IEC 60093
*Surface resistivity.; Dry as molded (**Conditioned)	1E15 (**1E14)	Ohm	IEC 60093
*Electric strength, 1mm; Dry as molded (**Conditioned)	40 (**35)	kV/mm	IEC 60243-1
*Comparative tracking index (CTI), Solution A	525	Rating	IEC 60112
*Water absorption, 23°C, Saturation value	7.0	%	ISO 62
*Water absorption, 23°C, 50% R.H., Equilibrium value	2.1	%	ISO 62
*Density	1,360	kg/m ³	ISO 1183
Bulk density	700	kg/m ³	ISO 60

**These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.*

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

Vinmar Polymers America cannot anticipate or control the many different conditions under which this information and/or product may be used. It does not guarantee the applicability or the accuracy of this information or the suitability of its products in any given situation. User of the material should make their own tests to determine the suitability of each such product for their particular purposes. The data listed herein falls within the normal range of product properties, but they should not be used to establish specification limits or used alone as the basis of design.

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