SABIC Innovative Plastics™

LNP* Thermocomp* Compound PX01658 Americas: COMMERCIAL

Also known as: THERMOCOMP PDX-P-01658
Product Reorder Name: PX01658

LNP* Thermocomp* PX01658 is a compound based on Nylon 6 containing Proprietary Fillers.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, brk, Type I, 5 mm/min	257	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D 638
Tensile Modulus, 50 mm/min	32740	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	392	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	391	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24700	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	267	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.9	%	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	30910	MPa	ISO 527
Flexural Stress	393	MPa	ISO 178
Flexural Modulus, 2 mm/min	25770	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	1020	J/m	ASTM D 4812
Izod Impact, notched, 23°C	115	J/m	ASTM D 256
Multiaxial Impact	3	J	ISO 6603
Instrumented Impact Total Energy, 23°C	13	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	67	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	213	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.92E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	6.41E+01	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	220	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.33	-	ASTM D 792
Density	1.33	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.75	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62

Source GMD, last updated:2009/08/11

Processing

Parameter

Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	265 - 275	°C
Front - Zone 3 Temperature	275 - 290	°C
Middle - Zone 2 Temperature	265 - 275	°C
Rear - Zone 1 Temperature	250 - 260	°C
Mold Temperature	80 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:2009/08/11

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.
(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

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