LNP™ THERMOCOMP™ Compound NX11302
Asia Pacific: COMMERCIAL

This is a PC/ABS compound with colorable, good plating, surface and mechanical performance, a good candidate for Laser Direct Structuring applications

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	470	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	460	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	75	%	ASTM D 638
Tensile Modulus, 50 mm/min	23900	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	800	kgf/cm²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	790	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22700	kgf/cm²	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	56	cm-kgf/cm	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.1E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.6E-05	1/°C	ASTM E 831
PHYSICAL			
Density	1.22	g/cm³	ASTM D 792
Water Absorption, 24 hours	0.01	%	ASTM D 570
Moisture Absorption, 50% RH, 24 hrs	0.01	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6	%	ASTM D 955
Melt Volume Rate, MVR at 260°C/5.0 kg	14	cm³/10 min	ISO 1133
ELECTRICAL			
Relative Permittivity, 1 GHz	2.94	-	IEC 60250
Dissipation Factor, 1 GHz	0.0057	-	IEC 60250

(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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	85 - 95	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.01	%
Melt Temperature	220 - 260	°C
Nozzle Temperature	220 - 260	°C
Front - Zone 3 Temperature	215 - 255	°C
Middle - Zone 2 Temperature	215 - 255	°C
Rear - Zone 1 Temperature	200 - 250	°C
Mold Temperature	40 - 75	°C
Back Pressure	0.5 - 0.9	MPa
Screw Speed	50 - 100	rpm
Shot to Cylinder Size	50 - 70	%
Vent Depth	0.038 - 0.051	mm

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