



LNP* Thermocomp* Compound HH0420A

Americas: COMMERCIAL

LNP* HH0420A is a compound based on Nylon 11 containing proprietary fillers. Added features of this material are High Specific Gravity.

Property

Sensile Stress, yld, Type I, 5 mm/min	TYPICAL PROPERTIES (1)			
Sensile Stress, brk, Type I, 5 mm/min	MECHANICAL	Value	Unit	Standard
Sensile Strain, yld, Type I, 5 mm/min	Tensile Stress, yld, Type I, 5 mm/min	40	MPa	ASTM D 638
Sensile Strain, brk, Type I, 5 mm/min	Tensile Stress, brk, Type I, 5 mm/min	40	MPa	ASTM D 638
Sersile Modulus, 50 mm/min 5770 MPa ASTM D 638 Selexural Stress, yld, 1.3 mm/min, 50 mm span 61 MPa ASTM D 790 Selexural Stress, brk, 1.3 mm/min, 50 mm span 61 MPa ASTM D 790 Selexural Stress, brk, 1.3 mm/min, 50 mm span 4880 MPa ASTM D 790 Selexural Modulus, 1.3 mm/min, 50 mm span 4880 MPa ASTM D 790 Sersile Stress, yield, 5 mm/min 41 MPa ISO 527 Sersile Stress, break, 5 mm/min 41 MPa ISO 527 Sersile Strain, yield, 5 mm/min 1.4 % ISO 527 Sersile Strain, yield, 5 mm/min 1.4 % ISO 527 Sersile Strain, break, 5 mm/min 1.4 % ISO 527 Sersile Modulus, 1 mm/min 4840 MPa ISO 527 Sersile Modulus, 1 mm/min 4840 MPa ISO 527 Sersile Modulus, 1 mm/min 4770 MPa ISO 178 MPACT Value Unit Standard Value Un	Tensile Strain, yld, Type I, 5 mm/min	1.3	%	ASTM D 638
Internal Stress, yld, 1.3 mm/min, 50 mm span 61 MPa	Tensile Strain, brk, Type I, 5 mm/min	1.3	%	ASTM D 638
Secural Stress, brk, 1.3 mm/min, 50 mm span 61 MPa	Tensile Modulus, 50 mm/min	5770	MPa	ASTM D 638
Rexural Modulus, 1.3 mm/min, 50 mm span	Flexural Stress, yld, 1.3 mm/min, 50 mm span	61	MPa	ASTM D 790
Sensile Stress, yield, 5 mm/min	Flexural Stress, brk, 1.3 mm/min, 50 mm span	61	MPa	ASTM D 790
Sensile Stress, break, 5 mm/min	Flexural Modulus, 1.3 mm/min, 50 mm span	4880	MPa	ASTM D 790
Internation	Tensile Stress, yield, 5 mm/min	41	MPa	ISO 527
Iso 527	Tensile Stress, break, 5 mm/min	41	MPa	ISO 527
Separation Sep	Tensile Strain, yield, 5 mm/min	1.4	%	ISO 527
Iso 178	Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
MPACT Value Unit Standard 20d Impact, unnotched, 23°C 202 J/m ASTM D 4812 20d Impact, notched, 23°C 33 J/m ASTM D 256 Multiaxial Impact 1 J ISO 6603 Instrumented Impact Total Energy, 23°C 9 J ASTM D 3763 20d Impact, unnotched 80*10*4 +23°C 13 kJ/m² ISO 180/1U 20d Impact, notched 80*10*4 +23°C 6 kJ/m² ISO 180/1A THERMAL Value Unit Standard HDT, 0.45 MPa, 3.2 mm, unannealed 162 °C ASTM D 648 HDT, 1.82 MPa, 3.2 mm, unannealed 84 °C ASTM D 648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 167 °C ISO 75/Bf HDT/Bf, 1.8 MPa Flatw 80*10*4 sp=64mm 95 °C ISO 75/Bf PHYSICAL Value Unit Standard PHYSICAL Value Unit Standard Specific Gravity 4.3 - ASTM D 792 Density 4.28 g/cm³ AS	Tensile Modulus, 1 mm/min	4840	MPa	ISO 527
202 J/m ASTM D 4812	Flexural Modulus, 2 mm/min	4770	MPa	ISO 178
ASTM D 256	IMPACT	Value	Unit	Standard
Autitiaxial Impact	Izod Impact, unnotched, 23°C	202	J/m	ASTM D 4812
### ASTM D 3763 Particular Content of the Energy, 23°C Particular Content of Ener	Izod Impact, notched, 23°C	33	J/m	ASTM D 256
Second Impact, unnotched 80*10*4 +23°C	Multiaxial Impact	1	J	ISO 6603
Standard	Instrumented Impact Total Energy, 23°C	9	J	ASTM D 3763
THERMAL Value Unit Standard HDT, 0.45 MPa, 3.2 mm, unannealed 162 °C ASTM D 648 HDT, 1.82 MPa, 3.2mm, unannealed 84 °C ASTM D 648 HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm 167 °C ISO 75/Bf HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm 95 °C ISO 75/Af PHYSICAL Value Unit Standard Specific Gravity 4.3 - ASTM D 792 Density 4.28 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.02 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 3702 Modified Static COF 0.44 - ASTM D 3702 Modified	Izod Impact, unnotched 80*10*4 +23°C	13	kJ/m²	ISO 180/1U
#DT, 0.45 MPa, 3.2 mm, unannealed	Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
#BDT, 1.82 MPa, 3.2mm, unannealed #BDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm #BDT/Af, 1.8 MPa Flatw	THERMAL	Value	Unit	Standard
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	HDT, 0.45 MPa, 3.2 mm, unannealed	162	°C	ASTM D 648
#DT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm PHYSICAL Specific Gravity 4.3 - ASTM D 792 Density Moisture Absorption, 50% RH, 24 hrs Mold Shrinkage, flow, 24 hrs Mold Shrinkage, xflow, 24	HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D 648
PHYSICAL Value Unit Standard Specific Gravity 4.3 - ASTM D 792 Density 4.28 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.02 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Oynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	167	°C	ISO 75/Bf
Specific Gravity 4.3 - ASTM D 792 Density 4.28 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.02 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Oynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Af
Density 4.28 g/cm³ ASTM D 792 Moisture Absorption, 50% RH, 24 hrs 0.02 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Oynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	PHYSICAL	Value	Unit	Standard
Moisture Absorption, 50% RH, 24 hrs 0.02 % ASTM D 570 Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Dynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	Specific Gravity	4.3	-	ASTM D 792
Mold Shrinkage, flow, 24 hrs 0.7 - 0.9 % ASTM D 955 Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Dynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	Density	4.28	g/cm³	ASTM D 792
Mold Shrinkage, xflow, 24 hrs 0.7 - 0.9 % ASTM D 955 Dynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Dynamic COF 0.44 - ASTM D 3702 Modified Static COF 0.38 - ASTM D 3702 Modified	Mold Shrinkage, flow, 24 hrs	0.7 - 0.9	%	ASTM D 955
Static COF 0.38 - ASTM D 3702 Modified	Mold Shrinkage, xflow, 24 hrs	0.7 - 0.9	%	ASTM D 955
	Dynamic COF	0.44	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH) 0.03 % ISO 62	Static COF	0.38	-	ASTM D 3702 Modified
	Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62

Source GMD, last updated:05/23/2008

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.

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