LNP™ THERMOCOMP™ Compound UF009S

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound UF-1009 HS
Product reorder name: UF009S

LNP THERMOCOMP™ UF009S is a compound based on Polyphthalamide resin containing 45% Glass Fiber. Added features of this material include: Heat Stabilized.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	2470	kgf/cm²	ASTM D 638
Tensile Strain, break	1.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	207500	kgf/cm²	ASTM D 638
Flexural Stress	4000	kgf/cm²	ASTM D 790
Flexural Modulus	191300	kgf/cm²	ASTM D 790
Tensile Stress, break	253	MPa	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	22740	MPa	ISO 527
Flexural Stress	386	MPa	ISO 178
Flexural Modulus	18330	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	137	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	17	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	159	cm-kgf	ASTM D 3763
Multiaxial Impact	44	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	82	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	258	°C	ASTM D 648
PHYSICAL			
Density	1.645	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.25	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5	%	ASTM D 955

(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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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Mold Shrinkage, flow, 24 hrs (5)	0.18	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.46	%	ISO 294
Density	1.64	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.37	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15	%
Melt Temperature	315 - 330	°C
Front - Zone 3 Temperature	325 - 340	°C
Middle - Zone 2 Temperature	315 - 325	°C
Rear - Zone 1 Temperature	310 - 320	°C
Mold Temperature	140 - 165	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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