



LNP™ THERMOTUF™ Compound WF008N

Asia Pacific: COMMERCIAL

40% glass fiber reinforced, high strength, high flow, for NMT application

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1280	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1280	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	108000	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1970	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	93800	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	131	MPa	ISO 527
Tensile Stress, break, 5 mm/min	131	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.9	%	ISO 527
Tensile Strain, break, 5 mm/min	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	11000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	208	MPa	ISO 178
Flexural Modulus, 2 mm/min	9700	MPa	ISO 178
IMPACT			
Charpy Impact, unnotched, 23°C	85	kJ/m ²	ISO 179/2C
Izod Impact, unnotched, 23°C	116	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	14	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	12	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	69	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	13	kJ/m ²	ISO 180/1A



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IMPACT			
Charpy Impact, notched, 23°C	14	kJ/m ²	ISO 179/2C
Charpy Impact, notched, -30°C	13	kJ/m ²	ISO 179/2C
THERMAL			
Vicat Softening Temp, Rate B/50	205	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	207	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	209	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.9E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	1.4E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, xflow	1.2E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	1.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	1.5E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	203	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	203	°C	ISO 75/Af
PHYSICAL			
Density	1.61	g/cm ³	ASTM D 792
Mold Shrinkage, flow (5)	0.27	%	SABIC Method
Mold Shrinkage, xflow (5)	0.8	%	SABIC Method
Melt Volume Rate, MVR at 250°C/5.0 kg	7	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 275°C/5 kg	11	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	2.15E+15	Ohm-cm	ASTM D 257
Dielectric Constant, 1.1 GHz	3.65	-	SABIC Method
Dielectric Constant, 1.9 GHz	3.72	-	SABIC Method



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ELECTRICAL			
Dissipation Factor, 1.1 GHz	0.013	-	SABIC Method
Dissipation Factor, 1.9 GHz	0.012	-	SABIC Method



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	100 - 120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	250 - 270	°C
Nozzle Temperature	255 - 275	°C
Front - Zone 3 Temperature	250 - 270	°C
Middle - Zone 2 Temperature	250 - 270	°C
Rear - Zone 1 Temperature	240 - 260	°C
Hopper Temperature	40 - 60	°C
Mold Temperature	100 - 160	°C