



LNP™ THERMOCOMP™ Compound Noryl_FM3020

Europe-Africa-Middle East: COMMERCIAL

LNP THERMOCOMP NORYL_FM3020 compound is GR/MR 30%, high modulus structural foam. 10% weight reduction, 0.250" wall thickness.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
FOAM - MECHANICAL 6.4 mm Wt Reduction	10	%	-
Tensile Stress, yield, 6.35 mm	730	kgf/cm ²	ASTM D 638
Tensile Strain, yield, 6.35 mm	2	%	ASTM D 638
Flexural Stress, yield, 6.4 mm	1060	kgf/cm ²	ASTM D 790
Flexural Modulus, 6.4 mm	66700	kgf/cm ²	ASTM D 790
Hardness, Rockwell M	83	-	ASTM D 785
Taber Abrasion, CS-17, 1 kg	100	mg/1000cy	ASTM D 1044
Coefficient of Friction on self, Static	0.54	-	ASTM D 1894
Coefficient of Friction on steel, Static	0.51	-	ASTM D 1894
IMPACT			
FOAM - IMPACT 6.4 mm Wt Reduction	10	%	-
Izod Impact, notched, 23°C, 6.4mm	9	cm-kgf/cm	ASTM D 256
THERMAL			
FOAM - THERMAL 6.4mm Wt Reduction	10	%	-
HDT, 0.45 MPa, 6.4 mm, unannealed	118	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	110	°C	ASTM D 648
CTE, -40°C to 95°C, flow	2.34E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	3.42E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	50	°C	UL 746B
Relative Temp Index, Mech w/impact	50	°C	UL 746B
Relative Temp Index, Mech w/o impact	50	°C	UL 746B
PHYSICAL			
FOAM - PHYSICAL 6.4mm Wt Reduction	10	%	-
Weight Reduction	10	%	SABIC Method



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PHYSICAL			
Specific Gravity	1.32	-	ASTM D 792
Specific Gravity, foam molded	1.19	-	ASTM D 792
Water Absorption, 24 hours	0.08	%	ASTM D 570
Mold Shrinkage, flow, 6.4 mm (5)	0.25	%	SABIC Method
Mold Shrinkage, xflow, 6.4 mm (5)	0.3	%	SABIC Method
ELECTRICAL			
FOAM - ELECTRICAL 6.4 mm Wt Reduction	20	%	-
Volume Resistivity	1.E+17	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+17	Ohm	ASTM D 257
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	4	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
FLAME CHARACTERISTICS			
FOAM - Flame Class Minimum Density	1.12	g/cm ³	-
UL Recognized, 94V-1 Flame Class Rating (3)	2.89	mm	UL 94
UL Recognized, 94-5VA Rating (3)	2.89	mm	UL 94



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	100 - 110	°C
Drying Time	2 - 3	hrs
Melt Temperature	280 - 300	°C
Nozzle Temperature	270 - 290	°C
Front - Zone 3 Temperature	280 - 300	°C
Middle - Zone 2 Temperature	260 - 280	°C
Rear - Zone 1 Temperature	240 - 260	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	80 - 100	°C