

LNP™ THERMOCOMP™ Noryl_FM4025

compound

Polyphenylene Ether + PS
SABIC Innovative Plastics Europe

Message:
LNP THERMOCOMP NORYL_FM4025 compound is GR/MR 40%, high modulus structural foam. 10% weight reduction, 0.250" wall thickness.

General Information			
Filler / Reinforcement	Glass \mineral, 40% filler by weight		
Features	Foamable property		
RoHS Compliance	RoHS compliance		
Processing Method	Foam treatment		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
-- ¹	1.29	g/cm ³	ASTM D792
--	1.43	g/cm ³	ASTM D792
Molding Shrinkage			Internal method
Flow: 6.40mm	0.15	%	Internal method
Transverse flow: 3.20mm	0.25	%	Internal method
Water Absorption (24 hr)	0.080	%	ASTM D570
Foam - Physical ²	10	%	Internal method
Foam - Mechanical ³	10	%	Internal method
Foam - Impact ⁴	10	%	Internal method
Foam - Thermal ⁵	10	%	Internal method
Foam - Electrical ⁶	20	%	Internal method
Foam - Flame Class Minimum Density	1.260	g/cm ³	Internal method
Weight Reduction	10	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	85		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 6.35 mm)	82.7	MPa	ASTM D638
Tensile Elongation (Yield, 6.35 mm)	1.5	%	ASTM D638
Flexural Modulus (6.40 mm)	7930	MPa	ASTM D790
Flexural Strength (Yield, 6.40 mm)	121	MPa	ASTM D790
Poisson's Ratio	0.38		ASTM D638
Coefficient of Friction			ASTM D1894
With steel-static	0.52		ASTM D1894
With Self-Static	0.55		ASTM D1894

Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	100	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 6.40 mm)	69	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	118	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	110	°C	ASTM D648
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 95°C	2.3E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 95°C	3.4E-5	cm/cm/°C	ASTM E831
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	ASTM D257
Volume Resistivity	1.0E+17	ohms·cm	ASTM D257
Arc Resistance ⁷	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 4		UL 746
Hot-wire Ignition (HWI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
	V-1		
2.90 mm	5VA		UL 94
5.00 mm	V-0		UL 94
Additional Information	Nominal Value	Unit	Test Method
Structural Foam Molding - Blowing Agent, Physical System: Nitrogen GasStructural Foam Molding - Concentration Range (Blowing Agent): 1 - 3 %Structural Foam Molding - Drying Temperature (Resin): 104 - 110 °CStructural Foam Molding - Drying Time (Resin): 2 - 4 hrsStructural Foam Molding - Drying Time (Resin, Cumulative): 8 hrsStructural Foam Molding - Front Temperature: 271 - 304 °CStructural Foam Molding - Melt Temperature: 271 - 310 °CStructural Foam Molding - Middle Temperature: 271 - 304 °CStructural Foam Molding - Mold Temperature: 66 - 82 °CStructural Foam Molding - Nozzle Temperature: 271 - 304 °CStructural Foam Molding - Rear Temperature: 260 - 288 °CStructural Foam Molding - Recommended Concentration (Blowing Agent): 2 %			
NOTE			
1.	Foam molded		
2.	6.4 mm wt reduction		
3.	6.4 mm wt reduction		
4.	6.4 mm wt reduction		
5.	6.4 mm wt reduction		
6.	6.4 mm wt reduction		
7.	Tungsten electrode		

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

