

NORYL™ RESIN FN150

REGION EUROPE

DESCRIPTION

NORYL FN150 twin wall foam meets UL standard 94 V-0/5V ratings at 4 mm wall thickness. These unique flammability characteristics make FN150 the supreme choice for designing optimum wall thickness in computer and business machine applications. NORYL FN150 twin wall foam maintains the advantages of the Engineering Structural Foam principle at optimal cost efficiency.

TYPICAL PROPERTY VALUES

Revision 20181012

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	40	%	ISO 527
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	2000	MPa	ISO 178
IMPACT			
Gardner Impact (GE)	10 – 20	J	SABIC method
Izod Impact, notched 80°10*4 +23°C	15	kJ/m ²	ISO 180/1A
THERMAL			
Thermal Conductivity	0.24	W/m·°C	ISO 8302
CTE, 23°C to 80°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	105	°C	ISO 306
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			
Weight Reduction	20	%	SABIC method
Specific Gravity	1.01	-	ASTM D 792
Mold Shrinkage on Tensile Bar, flow	0.6 – 0.8	%	SABIC method
Melt Volume Rate, MVR at 280°C/2.16 kg	6	cm ³ /10 min	ISO 1133
ELECTRICAL			
Relative Permittivity, 1 MHz	2.2	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0047	-	IEC 60250
Dissipation Factor, 1 MHz	0.0039	-	IEC 60250
Relative Permittivity, 50/60 Hz	2.3	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating	4	mm	UL 94
UL Recognized, 94-5VA Rating	4	mm	UL 94
Oxygen Index (LOI)	29	%	ISO 4589
INJECTION MOLDING			
Drying Temperature	80 – 100	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	2 – 3	hrs	
Melt Temperature	260 – 280	°C	
Nozzle Temperature	240 – 260	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	240 – 260	°C	
Rear - Zone 1 Temperature	220 – 240	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 80	°C	

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