

NORYL* FN215X Resin

聚苯醚 + PS

SABIC Innovative Plastics

Technical Data

产品说明

Structural foam resin. 170F (77C) HDT. Improved reliability and productivity. All values at 20% weight reduction.

总体

材料状态	• 已商用 : 当前有效
资料 ¹	• Technical Datasheet
UL Yellow Card ²	• E121562-221160
Search for UL Yellow Card	• SABIC Innovative Plastics • NORYL*
供货地区	• 北美洲
性能特点	• 可发泡性能
用途	• Structural Foam
加工方法	• 泡沫处理
多点数据	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • Flexural DMA (ASTM D4065) • Tensile Fatigue • Tensile Stress vs. Strain (ASTM D638) • Thermal Conductivity vs. Temperature (ASTM E1530)

物理性能	额定值 (英制)	额定值 (公制)	测试方法
比重			ASTM D792
-- ⁴	0.880	0.878 g/cm ³	
--	1.10	1.10 g/cm ³	
收缩率 - 流动 (0.252 in (6.40 mm))	0.0060 到 0.0080 in/in	0.60 到 0.80 %	Internal Method
吸水率			ASTM D570
24 hr	0.070 %	0.070 %	
平衡, 73°F (23°C)	0.17 %	0.17 %	
室外适用性	f1	f1	UL 746C
Foam - Physical ⁵	20 %	20 %	Internal Method
机械性能	额定值 (英制)	额定值 (公制)	测试方法
抗张强度 (屈服, 0.252 in (6.35 mm))	4200 psi	29.0 MPa	ASTM D638
伸长率 (断裂, 0.252 in (6.35 mm))	12 %	12 %	ASTM D638
弯曲模量 (0.252 in (6.40 mm))	276000 psi	1900 MPa	ASTM D790
弯曲强度 (屈服, 0.252 in (6.40 mm))	8900 psi	61.4 MPa	ASTM D790
Foam - Mechanical ⁵	20 %	20 %	Internal Method
冲击性能	额定值 (英制)	额定值 (公制)	测试方法
无缺口悬臂梁冲击 (73°F (23°C), 0.252 in (6.40 mm))	3.8 ft-lb/in	200 J/m	ASTM D4812
装有测量仪表的落镖冲击			ASTM D3763
-22°F (-30°C), Energy at Peak Load	29.0 in-lb	3.28 J	
73°F (23°C), Energy at Peak Load	97.0 in-lb	11.0 J	
Foam - Impact ⁵	20 %	20 %	Internal Method
热性能	额定值 (英制)	额定值 (公制)	测试方法
热变形温度			ASTM D648
66 psi (0.45 MPa), 未退火, 0.252 in (6.40 mm)	192 °F	88.9 °C	
264 psi (1.8 MPa), 未退火, 0.252 in (6.40 mm)	170 °F	76.7 °C	
RTI Elec	185 °F	85.0 °C	UL 746
RTI Imp	185 °F	85.0 °C	UL 746
RTI Str	185 °F	85.0 °C	UL 746
Foam - Thermal ⁵	20 %	20 %	Internal Method

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电气性能	额定值 (英制)	额定值 (公制)	测试方法
表面电阻率	> 1.0E+17 ohm	> 1.0E+17 ohm	ASTM D257
介电强度 (0.0630 in (1.60 mm), in Oil)	310 V/mil	12 kV/mm	ASTM D149
介电常数 (1 MHz)	2.20	2.20	ASTM D150
耗散因数 (1 MHz)	0.0044	0.0044	ASTM D150
耐电弧性 ⁶	PLC 6	PLC 6	ASTM D495
相比耐漏电起痕指数(CTI)	PLC 1	PLC 1	UL 746
高电压电弧起痕速率 (HVTR)	PLC 4	PLC 4	UL 746
可燃性	额定值 (英制)	额定值 (公制)	测试方法
UL 阻燃等级			UL 94
0.236 in (5.99 mm)	V-0	V-0	
0.118 in (3.00 mm)	V-1	V-1	
0.154 in (3.91 mm)	5VA	5VA	
Foam - Flame Class Minimum Density	53.06 lb/ft ³	850 kg/m ³	Internal Method
Radiant Panel Listing (UL)	YES	YES	

补充信息

Structural Foam Molding - Blowing Agent, Physical System: Nitrogen Gas
Structural Foam Molding - Concentration Range (Blowing Agent): 1 - 3 %
Structural Foam Molding - Drying Temperature (Resin): 71 - 82 °C
Structural Foam Molding - Drying Time (Resin): 2 - 4 hrs
Structural Foam Molding - Drying Time (Resin, Cumulative): 8 hrs
Structural Foam Molding - Front Temperature: 271 - 304 °C
Structural Foam Molding - Melt Temperature: 271 - 310 °C
Structural Foam Molding - Middle Temperature: 271 - 304 °C
Structural Foam Molding - Mold Temperature: 27 - 54 °C
Structural Foam Molding - Nozzle Temperature: 271 - 304 °C
Structural Foam Molding - Rear Temperature: 232 - 260 °C
Structural Foam Molding - Recommended Concentration (Blowing Agent): 2 %

备注

¹ 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ 一般属性：这些不能被视为规格。

⁴ Foam molded

⁵ 6.4 mm wt reduction

⁶ 钨电极