



STYRON™ 610

Americas Styrenics LLC - General Purpose Polystyrene

Tuesday, November 5, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Food Contact Acceptable	• High Heat Resistance	
Uses	• Blending	• Film	• Foam
Agency Ratings	• FDA 21 CFR 177.1640		
UL File Number	• E326906		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04		ASTM D792
Melt Mass-Flow Rate (200°C/5.0 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 8.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	450000	psi	ASTM D638
Tensile Strength (Yield, Injection Molded)	6380	psi	ASTM D638
Tensile Strength (Break, Injection Molded)	6380	psi	ASTM D638
Tensile Elongation (Break, Injection Molded)	3.0	%	ASTM D638
Flexural Modulus (Injection Molded)	450000	psi	ASTM D790
Flexural Strength (Injection Molded)	9000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, Injection Molded)	0.40	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	110		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	206	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed	191	°F	ASTM D648
Vicat Softening Temperature	225	°F	ASTM D1525
CLTE - Flow	5.0E-5	in/in/°F	ASTM D696

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	415 to 469	°F
Middle Temperature	424 to 480	°F
Front Temperature	424 to 480	°F
Nozzle Temperature	390 to 415	°F
Mold Temperature	60 to 150	°F
Injection Rate	Fast	
Back Pressure	29.0 to 174	psi

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

STYRON™ 610

Americas Styrenics LLC - General Purpose Polystyrene

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	351 to 379	°F
Cylinder Zone 2 Temp.	360 to 399	°F
Cylinder Zone 3 Temp.	370 to 410	°F
Cylinder Zone 4 Temp.	390 to 421	°F
Cylinder Zone 5 Temp.	399 to 430	°F
Adapter Temperature	379 to 450	°F
Melt Temperature	379 to 450	°F
Die Temperature	390 to 450	°F

Extrusion Notes

Polish Rolls: 66 - 104 °C

Head Pressure: 10 - 21 MPa

Notes

¹ Typical properties: these are not to be construed as specifications.