

Technical Information



STYRON A-TECH™ 1210

High Impact Polystyrene Resin

Overview

STYRON A-TECH™ 1210 is a newly developed high impact polystyrene (HIPS) resin based on patented technology, offering a unique combination of processability, stiffness, toughness, low gloss and surface smoothness.

Main Characteristics:

- Low gloss and smooth sheet surface
- Ease of processing
- Excellent thermoforming behaviour
- Good blendability with GPPS

Applications:

- Form Fill Seal (FFS) dairy packaging
- Medical device packaging
- Signage sheet
- Sheet applications requiring matt and smooth surface

Complies with:

- Europe Regulation (EC) 10/2011
- U.S. FDA 21 CFR 177.1640
- Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm ³	1.04 g/cm ³	ISO 1183
Apparent (Bulk) Density	0.60 g/cm ³	0.60 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.4 g/10 min	3.4 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	254000 psi	1750 MPa	ISO 527-1/1
Tensile Stress			ISO 527-2/5
Yield	2760 psi	19.0 MPa	
Break	3190 psi	22.0 MPa	
Tensile Strain (Break)	65 %	65 %	ISO 527-2/5
Flexural Modulus	283000 psi	1950 MPa	ISO 178
Flexural Stress	5510 psi	38.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength	6.2 ft-lb/in ²	13 kJ/m ²	ISO 180/1A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	165 °F	74.0 °C	
Vicat Softening Temperature	210 °F	99.0 °C	ISO 306/A120

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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