STYRON A-TECH™ 1200

Polystyrene Resin

Trinseo

Message:

STYRON A-TECH™ 1200 is a newly developed, high-impact polystyrene (HIPS) resin based on patented technology. The technology platform for STYRON A-Tech makes it possible to eliminate the typical trade-offs among the key properties for HIPS including toughness, gloss, stiffness and processability.
Main Characteristics:
Unique combination of toughness and stiffness
Ease of processing
Excellent thermoforming behaviour
Good blendability with General Purpose Polystyrene (GPPS)
Allows for down-gauging
Applications:
Form Fill Seal (FFS)
Pre-Forms (DFS)
Vending cups
Complies with:
Europe REGULATION (EC) 10/2011
U.S. FDA 21 CFR 177.1640
Consult the regulations for complete details.

General Information	
UL YellowCard	E162447-100256062
Features	Good Processability Good Stiffness Good Toughness High Impact Resistance
Uses	General Purpose
Agency Ratings	EU No 10/2011 FDA 21 CFR 177.1640
Forms	Pellets
Processing Method	Blow Molding Extrusion Injection Molding Sheet Extrusion Thermoforming

Physical	Nominal Value	Unit	Test Method
Density			
--	1.05	g/cm³	ISO 1183
--	1050	kg/m³	ISO 1183 [1]
Apparent Density	0.60	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ISO 1133

Melt volume-flow rate (200°C/5.0 kg)	5.00	cm^3/10min	ISO 1133 [2]
Water Absorption			ISO 62 [3]
Saturation	0.0	%	
Equilibrium	0.10	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1750	MPa	ISO 527-2/1, ISO 527-2 3 [4]
Tensile Stress			
Yield	19.5	MPa	ISO 527-2/5
Yield	19.0	MPa	ISO 527-2 [5]
Break	22.0	MPa	ISO 527-2/5
Tensile Strain (Yield)	1.3	%	ISO 527-2 [6]
Nominal Tensile Strain at Break			
--	65	%	ISO 527-2/5
--	> 50	%	ISO 527-2 [7]
Flexural Modulus	1950	MPa	ISO 178
Flexural Stress	38.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy notched impact strength			ISO 179/1eA [8]
-30°C	8.00	kJ/m^2	
23°C	12.0	kJ/m^2	
Charpy impact strength			ISO 179/1eU [9]
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength	14	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ISO 75-2 [10]
0.45 MPa	79.0	°C	
1.8 MPa	66.0	°C	
Vicat Softening Temperature			
--	100	°C	ISO 306/A120
50°C/h, B (50N)	85.0	°C	ISO 306 [11]
CLTE			ISO 11359-2 [12]
Flow	9.0E-5	cm/cm/°C	
Transverse	7.0E-5	cm/cm/°C	
NOTE			
1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
3.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		

4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
9.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

Recommended distributors for this material

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