

HIPS Taxed 4241

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

DESCRIPTION

INEOS STYROLUTION 4241 is a ductile high impact polystyrene for both extrusion and injection molding applications. This grade is especially suitable for the production of articles requiring good rigidity, dimension stability and high stiffness.

FEATURES

- Ductile high impact
- Good rigidity
- Dimension stability
- High stiffness

APPLICATIONS

- Thermoformed Sheet
- Household Appliance
- Food Packaging

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ISO 1133	g/10 min	3.5
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	3.4
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	11.5
Tensile Stress at Yield, 23 °C	ISO 527	MPa	25
Tensile Modulus	ISO 527	MPa	1900
Elongation at Break (MD)	ISO 527	%	55
Flexural Strength, 23 °C	ISO 178	MPa	40
Flexural Modulus, 23 °C	ISO 178	MPa	2150
Hardness, Rockwell	ISO 2039-2	R scale	80
Thermal Properties			
Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	95
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	87
Heat Deflection Temperature A; (unannealed; 1.8 MPa)	ISO 75	°C	70
Heat Deflection Temperature B; (unannealed; 0.45 MPa)	ISO 75	°C	80
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	91
Electrical Properties			

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Property, Test Condition	Standard	Unit	Values
Dielectric Strength, Short Time, 1.5 mm	IEC 60243-1	kV/mm	150
Surface Resistivity	IEC 62631-3-1	Ohm	>10 ¹³
Other Properties			
Density	ISO 1183	kg/m ³	1.04
Bulk Density (without external lubricant)	-	kg/m ³	0.6
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Drying Temperature	-	°C	70
Drying Time	-	h	2
Max Service Temperature	-	°C	240

Typical values for uncolored products

Please note that all processing data stated are only indicative and may vary depending on the individual processing complexities.

Please consult our local sales or technical representatives for details.

SUPPLY FORM

INEOS STYROLUTION 4241 is supplied as cylindrical shaped granules. It has to be kept in its original containers in a dry, cool place. Avoid direct exposure to sunlight. The manners of packing are 25kg bags and 800kg bulk bags.

PROCESSING

INEOS STYROLUTION 4241 can be processed by all methods normally used for polystyrene. With its good properties, it's quite suitable for the thermoformed sheet extrusion.

PRODUCT SAFETY

There are very few dusts in the bags when you open the package. They are come from the process of the production. The dusts are very safe for both the health and explosion prevention and projection.

DISCLAIMER

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The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application or its processability. INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.