TotalEnergies
Refining & Chemicals
Polymers

POLYSTYRENE COMPOUND 827H

Technical data sheet – Issue 4
Flame retardant Polystyrene
Produced in Europe

Description

POLYSTYRENE (PS) COMPOUND (CPD) 827H is a high impact brominated flame retardant polystyrene for applications that required HGW performances.
PS CPD 827H can be supplied in both natural and coloured forms.

Main characteristics

- ✓ HBCD free.
- ✓ Excellent UV stability.
- ✓ Hot Glow Wire (HGW) rated to 850°C (*).
- ✓ High flow.
- ✓ Outstanding injectability.

Applications

Fuses boxes, electrical housings.

Properties

	Method	Unit	Typical Value
Rheological properties			
Melt Flow Rate 200°C / 5 kg	ISO 1133-D	g/10 min	5.0
Flame retardant properties			
Hot Glow Wire flammability index (*)	IEC 695-2-1	°C	850
Mechanical properties			
Flexural modulus	ISO 178	MPa	2200
Izod impact strength (notched)			
at 23°C	180/1A	kJ/m²	8.0
Thermal properties			
Vicat Softening point A50 (10N, 50°C/h)	ISO 306	°C	93
Other physical properties			
Density (**)	ISO 1183	g/cm³	< 1.13

(*) HGW value measured on injected standard samples (thickness : 2 mm) *(**) based on natural resin*

Processing conditions

This product is heat stable. We nevertheless recommend avoiding prolonged residence time in the molding machine.

Speciality Compound

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We recommend using a maximum melt temperature of 220°C.
If possible, use low shear screw profile, and check ring assembly.
Where possible, only use tools with cold runner system and chemically resistant tooling.
Always purge machine with natural PS or PP, or carefully selected purging agent when machine stops.
In case of use of hot runner systems in injection molds, it is recommended not to exceed 180°C.

General information.

Standard properties: all teste carried out at 23°C unless stated otherwise. Mechanical properties are measured on injection moulded tests specimens.
Bulk density: based on natural resin is approximately 0.6 g/cm³.
PS CPD 827H should be kept in a cool and dry place. Avoid direct exposure to sunlight.

Handling and storage.

Please refer to the material safety datasheet (MSDS) for handling and storage informations. It is advisable to convert the product within one year after delivery. Provided storage conditions are used as given in the MSDS of our product.

MSDS may be obtained from the website: https://polymers.totalenergies.com/

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