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TOTAL PETROCHEMICALS

POLYSTYRENE COMPOUND 827

Technical data sheet
Flame Retardant Polystyrene
Produced in Europe

Description

POLYSTYRENE (PS) COMPOUNDS (CPDS) 827 is a high impact flame retardant polystyrene for use in HGW applications. PS CPDS 827 can be supplied in both natural and colored forms.

Main Characteristics

- ✓ DBDPE and Antimony Trioxide free
- ✓ Excellent UV stability
- ✓ Hot Glow Wire (HGW) rated to 750°C (IEC 695-2-1)
- ✓ High Flow

Applications

Insulated enclosures. Junction boxes.

Properties

Flammability rating	Method	Unit	Value
Hot Glow Wire	*IEC 695-2-1*	*°C*	**750**
Rheological			
Melt Flow index (200°C-5Kg)	*ISO 1133H*	*g/10mn*	**6.0**
Thermal			
Vicat softening point 50N (T° increase of 50°C/h)	*ISO 306B50*	*°C*	**90**
Mechanical			
Izod notched impact strength at 23°C	*180/1A*	*KJ/m²*	**7.0**
Tensile yield strength	*ISO 527-2*	*MPa*	**27**
Elongation at break	*ISO 527-2*	*%*	**39**
Flexural modulus	*ISO 178*	*MPa*	**2400**
Miscellaneous			
Density at 23°C	*ISO 1183*	*g/cm³*	**1.04**
Moulding shrinkage		*%*	**0.4 – 0.7**
Water absorption	*ISO 62*	*%*	**<0.1**

Processing conditions

- ➢ Maximum melt temperature is 220°C.
- ➢ This product is heat and shear sensitive. Avoid prolonged residence time in the moulding machine.
- ➢ If possible, use low shear screw profile, and check ring assembly.
- ➢ Where possible only use tools with cold runner systems.
- ➢ Use chemically resistant tooling where possible.
- ➢ Always purge machine into natural PS or PP, or propriety purging agent, when machine stops or finishes production.

General information

- ➢ Standard properties: All tests carried out at 23°C unless stated otherwise. Mechanical properties are measured on injection moulded tests specimens.
- ➢ Bulk density: bulk density of all natural grades is approximately 0.6 g/cm3.

Polystyrene

TOTAL