

TOTAL PETROCHEMICALS

POLYSTYRENE COMPOUND 853

Technical data sheet Flame Retardant Polystyrene Produced in Europe

Description

POLYSTYRENE (PS) COMPOUNDS (CPDS) 853 is a high impact, high stiffness halogen free flame retardant polystyrene

Main Characteristics

- ✓ Bromine and Chlorine free
- ✓ UL94 V2 @ 1.6 mm with very low combustion time
- ✓ Good flow and UV properties

Applications

Covers for electrical equipment. TV covers. Office automation.

Properties

| Flammability rating | Method | <u>Unit</u> | <u>Value</u> |
|---|------------|-------------|--------------|
| UL 94 V2 – All colors | | mm | 1.6 |
| Rheological | | | |
| Melt Flow index (200°C-5Kg) | ISO 1133H | g/10mn | 5.0 |
| Thermal | | | |
| Vicat softening point 50N (T° increase of 50°C/h) | ISO 306B50 | °C | 81 |
| Mechanical | | | |
| Izod notched impact strength at 23°C | 180/1A | KJ/m² | 7.0 |
| Tensile yield strength | ISO 527-2 | MPa | 32 |
| Elongation at break | ISO 527-2 | % | 40 |
| Flexural modulus | ISO 178 | MPa | 2500 |
| Miscellaneous | | | |
| Density at 23°C | ISO 1183 | g/cm³ | 1.06 |
| Moulding shrinkage | | % | 0.4 - 0.7 |
| Water absorption | ISO 62 | % | <0.1 |
| Processing conditions | | | |

Maximum melt temperature is 300°C, though typically 250/280°C is used.

> Under normal processing conditions, this grade is heat stable. However do not leave in barrel when

moulding machine is idle. Always purge with clean natural PS, PP or any propriety purging compound.

> Ensure all fumes are extracted at source.

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.

