

**TotalEnergies**Refining & Chemicals
Polymers

POLYSTYRENE COMPOUND 4440 3800

Provisional Technical data sheet – Issue 4
Compound Polystyrene
Produced in Europe

Description

POLYSTYRENE (PS) COMPOUND (CPD) 4440 3800 is a white high impact polystyrene for the injection moulding of parts demanding good dimensional stability at high temperatures, particularly boxes, frames, electronic devices. In addition, the flow properties of this grade make it particularly suitable for the moulding of large parts and for use with techniques such as gas injection.

PS CPD 4440 3800 has been developed to demonstrate outstanding long term ageing properties and color stability

Main characteristics

- ✓ UV ageing outstanding resistance.
- ✓ High impact

Applications

Covers for electrical equipment. Smoke detectors. Office automation.

Properties

	Method	Unit	Typical Value (*)
Rheological properties			
Melt Flow Rate 230°C/2,16 kg	ISO 1133-D	g/10 min	11.5
Mechanical properties			
Flexural modulus	ISO 178	MPa	2100
Izod impact strength (notched)			
at 23°C	180/1A	kJ/m ²	10.0
Thermal properties			
Vicat Softening point A50 (10N, 50°C/h)	ISO 306	°C	85
Tensile yield @ strength	ISO 527-1	MPa	25
Tensile strength @ break	ISO 527-1	MPa	19
Elongation @ break	ISO 527-1	%	32
Other physical properties			
Density (**)	ISO 1183	g/cm ³	< 1.13
Shrinkage	INTERNAL	%	0.4 – 0.5
UV stability	ASTM D4459 for 1000 hrs	dE*	<4

(*) Data not intended for specifications purposes

(**) based on natural resin

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Processing conditions

Maximum melt temperature is 260°C.

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 @ 23°C unless stated otherwise. Mechanical properties are measured on injection moulded specimens.

Bulk density: bulk density of all natural grades is approximately 0.6 g/cm³.

PS CPD 4440 3800 should be kept in cool and dry place.

Handling and storage

Please refer to the material safety data sheet (MSDS) for handling and storage information. 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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