K46-06-185

Product Technical Information

K46-06-185 is a natural grade of high density, high molecular weight polyethylene. It is specially designed for use in the manufacture of automotive fuel tanks.

Benefits & Features

- Easily mouldable into complex shapes , giving very uniform wall thickness
- Excellent cold impact strength
- Very good environmental stress crack resistance
- Low permeability to petrol/alcohol blends

Applications

- All types of automotive fuel tanks

Properties	Conditions	Test Methods	Values	Units
Rheological				
Melt Flow Rate	190°C/21.6kg	ISO 1133-1	4.2	g/10min
Physical				
Density ISO 17855-1	23°C	ISO 1183-1	946	kg/m³
Mechanical				
Tensile Strength at Yield	23°C	ISO 527-2	24	MPa
Elongation at break	23°C	ISO 527-2	>500	%
Flexural Modulus	23°C, 2 mm/min	ISO 178	1000	MPa
Izod Impact Strength	23°C	ISO 180/A	62	kJ/m²
Izod Impact Strength	-40°C	ISO 180/A	32	kJ/m²
BTT Stress Crack resistance	100% Igepal , 50°C	ASTM D 1693B	>1000	hours
Shore Hardness	Shore D	ISO 868	61	-
Thermal				
Thermal conductivity	23°C	ISO 8302	0.44	W/m.K
Coefficient of linear expansion		ASTM D 696	1.3 10^{-4}	K^{-1}
Brittleness temperature		ASTMD 746	< -118	°C
Vicat Softening Temperature	10N	ISO306/A50	130	°C

Data should not be used for specification work

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Storage

The product should be stored in a dry and dust free environment at temperature below 50°C. Exposure to direct sunlight should be avoided as this may lead to product deterioration.
It is advised to process the product within maximum one year after delivery.

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