



# 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
<b>Rheological</b>				
Melt Flow Rate	190°C/21.6kg	ISO 1133-1	4.2	g/10min
<b>Physical</b>				
Density ISO 17855-1	23°C	ISO 1183-1	946	kg/m <sup>3</sup>
<b>Mechanical</b>				
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/m <sup>2</sup>
Izod Impact Strength	-40°C	ISO 180/A	32	kJ/m <sup>2</sup>
BTT Stress Crack resistance	100% Igepal , 50°C	ASTM D 1693B	>1000	hours
Shore Hardness	Shore D	ISO 868	61	-
<b>Thermal</b>				
Thermal conductivity	23°C	ISO 8302	0.44	W/m.K
Coefficient of linear expansion		ASTM D 696	1.3 10 <sup>-4</sup>	K <sup>-1</sup>
Brittleness temperature		ASTMD 746	< -118	°C
Vicat Softening Temperature	10N	ISO306/A50	130	°C
<b>Data should not be used for specification work</b>				

## 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.