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

September, 2021

Published by

INEOS Olefins & Polymers Europe

K46-06-185

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.

Regulatory Information

The product and uses described herein may be subject to specific requirements or limitations for use in certain applications like food contact, drinking water or medical devices. Further information may be obtained from the website www.ineos.com where a specific Regulatory Certificate is available for each grade under the heading "SDS & Regulatory Certificate".

Unless specifically indicated, the product mentioned herein is not suitable for applications in the medical or pharmaceutical sectors.

Health and Safety Information

The product described herein may require precautions in handling. The available product health and safety information for this material is contained in the Safety Data Sheet (SDS) that may be obtained from the website www.ineos.com. Before using any material, a customer is advised to consult the SDS for the product under consideration for use.

Exclusion of Liability

Although INEOS O&P Europe endeavours to ensure that all information and advice relating to our materials or other materials howsoever provided to you by INEOS O&P Europe is accurate and up to date, no representation or warranty, express or implied is made by INEOS O&P Europe as to its accuracy or completeness. All such information and advice is provided in good faith and INEOS O&P Europe is not, to the maximum extent permitted by law, liable for any action you may take as a result of relying on such information or advice or for any loss or damage, including any consequential loss, suffered by you as a result of taking such action.

In addition data and numerical results howsoever provided to you by INEOS O&P Europe are given in good faith and are general in nature. Data and numerical results are not and shall not be regarded as specifications and as such INEOS O&P Europe is not, to the maximum extent permitted by law, liable for any action that you take as a result of relying on such data and results or for any loss or damage, including any consequential loss, suffered by you as a result of taking such action.

It remains at all times your responsibility to ensure that INEOS O&P Europe materials are suitable for the particular purpose intended and INEOS O&P Europe shall not be responsible for any loss or damage caused by misuse of INEOS O&P Europe products. To the maximum extent permitted by law, INEOS O&P Europe accepts no liability whatsoever arising out of the application, adaptation or processing of the products described herein, the use of other materials in lieu of INEOS O&P Europe materials or the use of INEOS O&P Europe materials in conjunction with such other materials.

September, 2021

Published by

INEOS Olefins & Polymers Europe