

## Technical Data Sheet

### HBM 4261A

High Density Polyethylene

HBM4261A is a high molecular weight, high-density polyethylene with broad molecular weight distribution specially developed for producing automotive fuel tank. This grade, which is produced by 1-hexene co-monomer, offers a very good creep strength, good processability, excellent environmental stress cracking resistance (ESCR) and stiffness.

HBM4261A has been manufactured under Basell license.

#### Applications:

Automotive fuel tank, Non-fuel reservoirs

**Technical Data Sheet**

Typical Properties	Typical Value <sup>1</sup>	Units	Test Method
High Load Melt Flow Index(190°C/21.6kg)	5.6	g/10 min	ISO 1133
Density <sup>2</sup>	0.947	gr/cm3	ISO 1183
Bulk Density	>0.50	gr/cm3	ISO 60
<b>Mechanical<sup>3</sup></b>			
Tensile Strength at Yield	25	MPa	ISO527-1;2
Tensile Strength at Break	45	MPa	ISO527-1;2
Elongation at Yield	10	%	ISO527-1;2
Elongation at Break	>120	%	ISO527-1;2
Tensile Modulus of Elasticity	800	MPa	ISO527-1;2
Flexural Modulus - 1% Secant	>800	MPa	ASTM D790
ESCR F10 (10% Igepal, Method B)	>2000	hr	ASTM D1693
FNCT(3.5 Mpa, 2% Arkopal n100,80°C)	>80	hr	ISO 16770
<b>Impact</b>			
Tensile Impact Strength (Notched, Type 1, Method A, -30°C)	167	KJ/m2	ISO 8256
Izod Impact Strength (Notched, Method A, 23	26	KJ/m2	ISO 180
<b>Thermal Properties</b>			
Melting Temperature	130	°C	ISO 3146
Oxidation Induction Time (200°C)	>50	min	iso
Vicat Softening Temperature (Method A/ 10N)	126	°C	ISO 306
Deflection Temperature Under Load (0.45 MPa)	68	°C	ISO 75
Deflection Temperature Under Load (1.8 MPa)	50	°C	ISO 75
<b>Recommended Process Conditions<sup>4</sup></b>			
<b>Processing Method: Extrusion Blow Molding; Thermoforming</b>			
<b>Extruder Barrel Temperature: 200-230 °C</b>		<b>Melt Temperature: 205-240 °C</b>	

1. Typical values: these are not to be construed as specifications.
2. The density parameter was determined on compression-molded specimens, which were prepared in accordance with procedure C of ASTM D4703, Annex A1.
3. Properties are based on compression-molded specimens, which were prepared in accordance with procedure B of ASTM D4703, Annex A1, using 100% HBM4261A resin.
4. Please note that, these processing conditions are recommended by manufacturer only for 100% HBM4261A resin (not in the case of blending with any other compatible material), therefore because of the many particular factors which are outside our current knowledge and control and may affect the use of product, no warranty is given for the foregoing data. Moreover, the specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.