

## Process Optimization



ASPC

Doc  
Name:

Product Data sheet -High Density polyethylene  
**HCH 5020**

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Doc  
No.

TEC-PRO-PDS-011

Rev: 6

### Supplier:

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Pars special Economic Energy zone

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### Typical Data

Properties	Value	unit	Test method
<b>Physical Properties</b>			
Density (23 °C)	950	kg/m3	ISO 1183
MFI (190 °C /21.6Kg)	22	dg/min	ISO 1133
MFI (190 °C /2.16Kg)	0.3	dg/min	ISO 1133
Bulk Density	>0.5	g/cm3	ISO 1133
<b>Mechanical properties</b>			
Tensile Modulus of elasticity	1000	MPa	ISO527-1
Tensile stress at Yield	25	MPa	ISO 527-1
Tensile strain at Yield	9	%	ISO 527-1
Notched Tensile impact strength(-30 °C)	110	kJ/m2	ISO 8256/1A
<b>Thermal Properties</b>			
HDT,(0.45 MPa)	75	°C	ISO 75B-1
HDT,(1.80 MPa)	43	°C	ISO 75A-1
Melting Point	131	°C	ISO 11357
Vicat Temperature (B50,50 °C/h , 50 N)	78	°C	ISO 306
<b>Hardness</b>			
Ball indentation Hardness (H 132/30)	45	MPa	ISO 2039-1
FNCT (3.5MPa, 80°C, 2% Igepal BC/9)	6	h	ISO/CD 16770
ESCR(bottle test)	150	h	Basell
Additive : Antioxidant-Heat stabilizer			

### Notes:

Typical values; not to be construed as specifications

### Application

HCH 5020 is suitable for Extrusion Blow Moulding (Small blow mouldings, Engineering parts), Packaging of consumer goods, Packaging of dangerous goods, Packaging of surfactants

### General information


**HCH5020** has been manufactured using Basell Lupotech G licensed technology.

### Processing

Recommended melt temperatures: 170 - 200°C

**Note:** *this information is based on our current knowledge and experience .in view of many factors that may affect processing and application, this data does not relive processors from the responsibility of carrying out their own tests and experiments, neither does it imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.*

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 ASPC	<b>Process Optimization</b>		
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### Packaging

Supplied in pellet form and can be packaged in 25Kg Bags, one ton semi bulk or 17 tons bulk containers.

### Food packaging

The above mentioned grade meets the relevant requirements of plastics directive 2002/72/EC (06-08-2002) and its amendments till directive 2008/39EC relating to plastic materials and articles intended to come into contact with foodstuffs.

### Pharmaceutical Application

The above mentioned grade meets the requirements of the European pharmacopeia version 6 section 3.1.5 for pharmaceutical application.

### Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

1. be equipped with adequate filters
2. is operated and maintained in such a manner to ensure no leaks develop
3. that adequate grounding exists at all times

We further recommended that good housekeeping will practiced throughout the facility

### Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the ambient temperature should not exceed 50. It is also advisable to process polyethylene resins (in pelletized or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

### Handling

Minimal protection to prevent possible mechanical injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapors.

### Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources .in burning; polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

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