

## Process Optimization



ASPC

Doc  
Name:

Product Data sheet -Medium Density polyethylene

MCH 3820

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Doc  
No.

TEC-PRO-PDS-014

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)	938	kg/m <sup>3</sup>	ISO 1183
MFI (190 °C /2.16kg)	20	dg/min	ISO 1133
Bulk Density	>0.50	g/cm <sup>3</sup>	ISO 60
<b>Mechanical properties</b>			
Tensile Modulus of elasticity	650	MPa	ISO527-1
Tensile stress at Yield	20	MPa	ISO 527-1
Tensile strain Yield	10	%	ISO 527-1
Ball indentation hardness H 49/30	34	MPa	ISO 2039-1
Shore D hardness	44	-	ISO 868
<b>Thermal Properties</b>			
HDT,(0.45 MPa)	61	°C	ISO 75B-1
HDT,(1.80 MPa)	38	°C	ISO 75A-1
Additive : Antioxidant –Heat stabilizer			

### Notes:

Typical values; not to be construed as specifications

### Application

MCH 3820 is suitable for extrusion applications, film and geo-membrane

### General information


MCH 3820 has been manufactured using Basell Lupotech G licensed technology

### Processing

Recommended melt temperatures: 170 - 250°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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### 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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