



# MEHR PETROCHEMICAL COMPANY HIGH DENSITY POLYETHYLENE TECHNICAL DATASHEET

7000F (FILM GRADE)

## PRODUCT DESCRIPTION

7000 F is a high density polyethylene resin ;a product of bi-modal process from Mitsui Chemicals, Inc. of Japan

## TYPICAL APPLICATION

- Recommend film thickness at 10-25 micron
- High tensile strength with good dart impact strength
- Low gel content
- Good moisture barrier
- Food contact applicable
- Good Impact resistance and processability
- Shopping bag and T-shirt bag
- Garbage bag
- Liner bag
- Enhanced ultra thin film
- High stiffness
- Wide service Temperature range, UV resistance

## PROPERTIES

### Physical properties

Property	Test Method	Value	Unit
<b>Resin Properties</b>			
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	0.04	g/10 min
Density	ASTM D 1505	0.954	g/cm <sup>3</sup>
Melting Point	ASTM D 2117	131	°C
Vicat Softening Point	ASTM D 1525	124	°C
Brittleness Temperature	ASTM D 746	< -60	°C
ESCR	ASTM D 1693 @ 50 °C (Condition: Compression Moulded, 25% Igepal)	> 1000	hrs, F50
<b>Film Properties</b>			
Tensile Strength at Yield	ASTM D 638 @ crosshead speed 50mm/min	MD: -, TD: 250*	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D 638 @ crosshead speed 50mm/min	MD: 620*, TD: 310*	kg/cm <sup>2</sup>
Tensile Modulus, 2% Secant	ASTM D 638 @ crosshead speed 50mm/min	MD: 8200*, TD: 8000*	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 638 @ crosshead speed 50mm/min	MD : 240*, TD : 450*	%
Elmendorf Tear Strength	ASTM D 1922	MD : 3*, TD : 80*	g
Dart Impact Strength	ASTM D 1709	139*	g

(\*) Properties obtained from film produced on a pilot line , 12 micron, BUR 5:1, MD = Machine Direction, TD = Transverse Direction

Note : Conversion factor for changing unit from kg/cm<sup>2</sup> to MPa is divided by 10.2

## PROCESSING TECHNIQUES

The actual extrusion condition depends on type of using machine, size and film thickness of product required.

Generally, melt temperature should be 190-210 oC with BUR = 3-5 times and frost line height (FLH) = 8-10 times of die diameter.

## Product Technical Assistance

For technical assistance or further information on this product contact MHPC technical team at the address or telephone number as specified below.



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#### PRODUCT AVAILABLE FORM AND PACKAGING

- ◊ Pellet
- ◊ 25 kg loose bag
- ◊ Big bag with specified weight

#### STORAGE

- Store in original container in tidy according to the manual of Handling and Storage from Mehr Petrochemical Company .
- Product(s) should be stored in dry and dust free location at temperature below 50°C and protected from direct sunlight and/or heat, well-ventilated area, away from incompatible materials and food and drink, as this may lead to quality deterioration, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.
- Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination
- The storage area should be stable and not be slopped.

#### SAFETY

- The product is not classified as a hazardous material.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products;
- For more information, contact Mehr Petrochemical company technical service.

#### RECYCLING

- The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products.
- For more information, contact Mehr Petrochemical company technical service.

#### RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

- Material Safety Data Sheet
- Statement on compliance to food contact regulations.

#### DISCLAIMER

- The product can be used only for the application as specified hereabove.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information
- We make no warranties which extend beyond the description contained herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose
- It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our product.
- No liability can be accepted in respect of the use of our products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials