

## 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

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|--------------------------------------------------------|-------------------------------------------------|
| ◆ Recommend film thickness at 10-25 micron             | ◆ Shopping bag and T-shirt bag                  |
| ◆ High tensile strength with good dart impact strength | ◆ Garbage bag                                   |
| ◆ Low gel content                                      | ◆ Liner bag                                     |
| ◆ Good moisture barrier                                | ◆ Enhanced ultra thin film                      |
| ◆ Food contact applicable                              | ◆ High stiffness                                |
| ◆ Good impact resistance and processability            | ◆ 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/cm3    |
| 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<br>(Condition: Compression Molded, 25% Igepal) | > 1000               | hrs, F50 |
| <b>Film Properties</b>     |                                                                    |                      |          |
| Tensile Strength at Yield  | ASTM D 638 @ crosshead speed 50mm/min                              | MD: -, TD: 250*      | kg/cm2   |
| Tensile Strength at Break  | ASTM D 638 @ crosshead speed 50mm/min                              | MD: 620*, TD: 310*   | kg/cm2   |
| Tensile Modulus, 2% Secant | ASTM D 638 @ crosshead speed 50mm/min                              | MD: 8200*, TD: 8000* | kg/cm2   |
| 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/cm2 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

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**7000F Film Grade**

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**PRODUCT AVAILABLE FORM AND PACKAGING**

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◆ Pellet

◆ 25 kg loose bag

◆ Big bag with specified weight

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**STORAGE**

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- ◆ 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.
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**SAFETY**

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- ◆ 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.
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**RECYCLING**

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- ◆ 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.
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**RELATED DOCUMENTS**

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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
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**DISCLAIMER**

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- ◆ 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