HIGH DENSITY POLYETHYLENE TECHNICAL DATASHEET

7000F (FILM GRADE)

PRODUCT AVAILABLE FORM AND PACKAGING

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
Resin Properties			
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	> 1000	hrs, F50
	(Condition: Compression Molded, 25% Igepal)		
Film Properties			
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

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