

## Product Description

EL-LENE F15 is a product of bi-modal process from Mitsui Chemicals, Inc. of Japan.

## Typical Applications

- Suitable for high speed machine and wide lay flat film (>25")
- Shopping bag and T-shirt bag
- Garbage bag
- Liner bag

## Product Characteristics

- High productivity
- High tensile strength with good dart impact strength
- Low gel content
- Excellent printing
- Good moisture barrier
- Food contact applicable (Complies with U.S FDA 21 CFR 177.1520)

## Physical properties

Property	Test Method	Value	Unit
<b>Resin Properties</b>			
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	0.06	g/10 min
Density	ASTM D 1505	0.954	g/cm <sup>3</sup>
Melting Point	ASTM D 2117	130	°C
Vicat Softening Point	ASTM D 1525	123	°C
Brittleness Temperature	ASTM D 746	< -60	°C
ESCR	ASTM D 1693 @ 50 °C (Condition B, Compression Molded, 25% Igepal)	> 1000	hrs, F <sub>50</sub>
<b>Film Properties</b>			
Tensile Strength at Yield	ASTM D 882	MD: -, TD: 320*	kg/cm <sup>2</sup>
Tensile Strength at Break	ASTM D 882	MD: 910*, TD: 380*	kg/cm <sup>2</sup>
Tensile Modulus, 2% Secant	ASTM D 882	MD: 9900*, TD: 9800*	kg/cm <sup>2</sup>
Elongation at Break	ASTM D 882	MD : 350*, TD : 530*	%
Elmendorf Tear Strength	ASTM D 1922	MD : 3*, TD : 135*	g
Dart Impact Strength	ASTM D 1709	142*	g

(\*) Properties obtained from film produced on a pilot line at TPE, 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 180-200 °C with BUR = 3-5 times and frost line height (FLH) = 8-10 times of die diameter.

## Product Available Form

- Pellet

## Product Handling

- 25 kg loose bag
- Big bag with specified weight

## Product Technical Assistance

For technical assistance or further information on this product or any other EL-Lene products, please contact EL-Lene representatives.

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