



JG Summit Petrochemical Corporation

# EVALENE<sup>®</sup>

## LINEAR LOW DENSITY POLYETHYLENE

| Property  | ASTM Test Method            | Unit              | INJECTION MOLDING                        |   | FILMS   |  |                    |  |                      |  |   |                    |
|---|-----------------------------|-------------------|--|---|---|--|--------------------|--|----------------------|--|---|--------------------|
|   |                             |                   | LJ20241                                  | LJ25181                                   | LF08261   | LF10181  | LF20181            | LF20182  | LF20184              | LF20185  | LF20186   |                    |
| Melt Index, 190°C/2.16 kg   | D1238                       | g/10 min          | 20                                       | 25  | 0.8   | 1.0  | 2.0                | 2.0  | 2.0                  | 2.0  | 2.0   | 2.0                |
| Density   | D1505                       | kg/m <sup>3</sup> | 924                                      | 918                                       | 926   | 918 <sup>(1)</sup>   | 918 <sup>(1)</sup> | 918  | 918 <sup>(1)</sup>   | 918  | 918   | 918 <sup>(1)</sup> |
| Tensile Yield Strength  | *                           | MPa               | 10                                       | 8   | -   | -  | -                  | -  | -                    | -  | -   | -                  |
| Tensile Break Strength  | *                           | MPa               | -  | -   | 48/44   | 35/28  | 30/25              | 27/23  | 19/15                | 28/25  | 15/12   |                    |
| Elongation at Break   | *                           | %                 | >1000                                    | >1000                                     | 800/900   | 800/900  | 900/1000           | 750/750  | 650/600              | 850/900  | 600/550   |                    |
| Tensile Modulus   | **                          | MPa               | 250                                      | 185                                       | 290/360   | 200/220  | 190/200            | 200/230  | 190/200              | 170/190  | 200/210   |                    |
| Elmendorf Tear Strength   | D1922                       | g                 | -  | -   | 280/>500  | 160/300  | 160/270            | 170/275  | 160/260              | 130/300  | 200/330   |                    |
| Dart Impact Strength  | D1709A                      | g                 | -  | -   | 130   | 100  | 80                 | 75   | 85                   | 80   | 95  |                    |
| * For Film grades: ASTM D882 using 25-micron blown film samples. Test speed: 500 mm/min.<br>For Other grades: ASTM D638 using injection-molded specimens as per ASTM D4976. Test speed: 50 mm/min.<br><br>** For Film grades: Same test method as in (*), except that testing rate is 25 mm/min.<br>For Other grades: Same test method as in (*), except that testing rate is 5 mm/min.<br><br>(1) Density is that of the base polymer. Final density is higher due to presence of antiblock. | <b>Special Features</b>     |                   | excellent processability, high gloss     | excellent processability, flexibility     | excellent tensile strength  |  | good clarity       | best for blending with LDPE for seal layers in laminated packaging | improved clarity     | best protection against high extrusion temperatures                    | best clarity & openability when blended with LDPE |                    |
|   | <b>Typical Applications</b> |                   | container lids, toys, base for colorants | lids, colorant base, toys, carpet backing | barefoot  | high slip, high AB   | high slip, high AB | barefoot   | high slip, medium AB | barefoot   | high slip, high AB                                |                    |
|   |                             |                   |  |   | general purpose film, industrial liners, food packaging, stretch film, rotomolding          |  |                    |  |                      |  |   |                    |
|   |                             |                   |  |   | heavy duty sacks, lamination film, trash bags, flexible packaging, stretch wrap, mulch film | general purpose film, industrial liners, agricultural liners | blown films        | cast films for stretch application, rotomolded items               | blown films          | cast films for high temperature stretch applications, rotomolded items | blown films                                       |                    |

**Conversions:**  
 MPa x 10.2 = kg/cm<sup>2</sup>  
 MPa x 145 = psi  
 kg-cm/cm x 9.81 = J/r  
 kJ/m<sup>2</sup> x 10.2 = J/m (only if dimensions under notch are 3.2 x 10.16 mm)

All EVALENE LLDPE grades comply with FDA 21CFR177.1520.

Since the conditions and circumstances in which the polymer may be used are beyond our control, JG Summit Petrochemical Corporation does not accept any liability regarding loss and damage which may result directly or indirectly from the use of this information.

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