



**Formosa Plastics®**

Formolene® HDPE

## Formolene® HL3721

### Medium Density Polyethylene

Formolene® HL3721 is a high molecular weight hexene copolymer resin tailored specifically for cast extrusion production of geomembrane films. The resin provides an excellent balance of ESCR properties, broad fusion range, excellent melt strength and good overall process-ability.

#### Suggested Applications:

Landfill Liners

Gasoline and Chemical Tank Containment Liners

Tunnel Moisture Barriers

Mine Tailing Collection Projects

#### Nominal Physical Properties:

| PROPERTY*                                                    | ASTM<br>TEST<br>METHOD | English               |         | SI                |        |
|--------------------------------------------------------------|------------------------|-----------------------|---------|-------------------|--------|
|                                                              |                        | UNIT                  | VALUE   | UNIT              | VALUE  |
| Density                                                      | D1505                  | g/cc                  | 0.937   | g/cc              | 0.937  |
| Melt Index, Condition E,<br>190°C/21.6 kg                    | D1238                  | g/10 min              | 21.0    | g/10 min          | 21.0   |
| Tensile Yield Strength<br>2 in. per min., Type IV bar        | D638                   | psi.                  | 2,900   | MPa               | 20     |
| Elongation at Break<br>2 in. per min., Type IV bar           | D638                   | %                     | 800     | %                 | 800    |
| Flexural Modulus, Tangent -<br>16:1 span:depth, 0.5 in./min. | D790                   | psi.                  | 120,000 | MPa               | 830    |
| ESCR<br>Condition B, (10% Igepal)F <sub>50</sub>             | D1693                  | h                     | >1,500  | h                 | >1,500 |
| Condition C, (100% Igepal) F <sub>50</sub>                   | D1693                  | h                     | >1,500  | h                 | >1,500 |
| SP-NCTL                                                      | D5397                  | h                     | >900    | h                 | >900   |
| Durometer Hardness,<br>Type D (Shore D)                      | D2240                  | Shore D               | 57      | Shore             | 57     |
| Vicat Softening Temperature,<br>Loading 1, Rate A            | D648                   | °F                    | 221     | °C                | 105    |
| Heat Deflection Temperature,<br>66 psi., Method A            | D648                   | °F                    | 137     | °C                | 58     |
| Brittleness Temperature,<br>Type A, Type I specimen          | D746                   | °F                    | <-103   | °C                | <-75   |
| Tensile Impact<br>Type S Bar                                 | D1822                  | Ft-lb/in <sup>2</sup> | 190     | KJ/m <sup>2</sup> | 400    |

\* Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D4703, Annex A1.

The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

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