



## XUS 89770.00 Experimental Polyethylene Resin

**Overview** XUS 89770.00 Experimental Polyethylene Resin is specifically designed for high performance cast stretch wrap films.

Films made of XUS 89770.00 Experimental Polyethylene Resin exhibit excellent stretchability and an excellent balance of processability and mechanical properties.

XUS 89770.00 Experimental Polyethylene Resin is to be used as a core layer in coextruded cast film structures together with a cling resin for films in the thickness range of 10 and 35 micron

Applications:

- Cast Stretch wrap film

Complies with:

- U.S. FDA FCN 1539
- EU, No 10/2011

**Additive:**      • Antiblock: No                      • Processing Aid: No                      • Slip: No

| Physical   | Nominal Value (SI)      | Test Method     |
|--|-------------------------|-----------------|
| Density  | 0.916 g/cm <sup>3</sup> | ASTM D792       |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)                | 4.0 g/10 min            | ASTM D1238      |
| Films  | Nominal Value (SI)      | Test Method     |
| Film Thickness - Tested                                  | 17 µm                   |                 |
| Film Puncture Energy                                     | 1.90 J                  |                 |
| Film Puncture Force                                      | 27.0 N                  |                 |
| Secant Modulus – 2% Secant, MD                           | 93.0 MPa                | ISO 527-3       |
| Secant Modulus – 2% Secant, TD (17 µm)                   | 81.0 MPa                | ISO 527-3       |
| Tensile Strength – MD <sup>2</sup> (Yield, 17 µm)        | 4.80 MPa                | ASTM D882       |
| Tensile Strength – TD <sup>2</sup> (Yield, 17 µm)        | 7.10 MPa                | ASTM D882       |
| Tensile Strength – MD <sup>2</sup> (Break, 17 µm)        | 31.0 MPa                | ASTM D882       |
| Tensile Strength – TD <sup>2</sup> (Break, 17 µm)        | 27.0 MPa                | ASTM D882       |
| Tensile Elongation – MD <sup>2</sup> (Break, 17 µm)      | 420 %                   | ASTM D882       |
| Tensile Elongation – TD <sup>2</sup> (Break, 17 µm)      | 590 %                   | ASTM D882       |
| Dart Drop Impact <sup>2</sup>                            | 530 g                   | ASTM D1709A     |
| Elmendorf Tear Strength – MD <sup>2</sup> (Break, 17 µm) | 150 g                   | ASTM D1922      |
| Elmendorf Tear Strength – TD <sup>2</sup> (Break, 17 µm) | 330 g                   | ASTM D1922      |
| Thermal  | Nominal Value (SI)      | Test Method     |
| Melting Temperature                                      | 112 °C                  | Internal Method |
| Optical  | Nominal Value (SI)      | Test Method     |
| Gloss  | 91                      | ASTM D2457      |
| Haze   | 0.700 %                 | ASTM D1003      |