

# Elastollan® 1195A10

Thermoplastic Polyurethane Elastomer (Polyether)

**BASF Corp. Thermoplastic Polyurethanes**

## Technical Data

### Product Description

Elastollan® 1195A is specifically formulated for extruded profile, sheet and film applications. It exhibits excellent abrasion resistance, toughness, transparency, very good low temperature flexibility, hydrolytic stability and fungus resistance. It has excellent damping characteristics and outstanding resistance to tear propagation. Elastollan® 1195A is rated UL-94 HB in vertical flame test for wall thicknesses of 0.75 and 3.0 mm. Elastollan® 1195A also conforms to the FDA food contact regulations as described in book 21, section 177.2600 for wet food contact applications. Elastollan® 1195A also has NSF Standard 61 "Water Contact Material" certification. Elastollan®1195A is supplied uncolored and in diced or pelletized form.

### General

|                           |                                                                                                                                   |                                                                                                                               |                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Features                  | <ul style="list-style-type: none"><li>• Abrasion Resistant</li><li>• Food Contact Acceptable</li><li>• Fungus Resistant</li></ul> | <ul style="list-style-type: none"><li>• Good Tear Strength</li><li>• Good Toughness</li><li>• Hydrolytically Stable</li></ul> | <ul style="list-style-type: none"><li>• Low Temperature Flexibility</li></ul> |
| Agency Ratings            | <ul style="list-style-type: none"><li>• FDA 21 CFR 177.2600</li></ul>                                                             | <ul style="list-style-type: none"><li>• NSF STD-61</li></ul>                                                                  |                                                                               |
| Automotive Specifications | <ul style="list-style-type: none"><li>• GM QK 000761 Type A Color: Natural</li></ul>                                              | <ul style="list-style-type: none"><li>• IMDS ID 31038103 Color: Natural</li></ul>                                             |                                                                               |
| Appearance                | <ul style="list-style-type: none"><li>• Clear/Transparent</li></ul>                                                               |                                                                                                                               |                                                                               |
| Processing Method         | <ul style="list-style-type: none"><li>• Extrusion</li></ul>                                                                       | <ul style="list-style-type: none"><li>• Injection Molding</li></ul>                                                           |                                                                               |

| Physical                                  | Nominal Value Unit     | Test Method |
|-------------------------------------------|------------------------|-------------|
| Density / Specific Gravity                | 1.14 g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (210°C/10.0 kg) | 35 to 65 g/10 min      | ASTM D1238  |

| Mechanical                          | Nominal Value Unit | Test Method |
|-------------------------------------|--------------------|-------------|
| Tensile Modulus (Injection Molded)  | 51.7 MPa           | ASTM D412   |
| Flexural Modulus (Injection Molded) | 52.4 MPa           | ASTM D790   |
| Taber Abrasion Resistance           | 55.0 mg            | ASTM D1044  |
| Abrasion - DIN                      | 25 mm <sup>3</sup> | DIN 53516   |

| Elastomers                 | Nominal Value Unit | Test Method |
|----------------------------|--------------------|-------------|
| Tensile Stress             |                    | ASTM D412   |
| 100% Strain                | 17.2 MPa           |             |
| 300% Strain                | 35.9 MPa           |             |
| Tensile Strength           | 39.3 MPa           | ASTM D412   |
| Tensile Elongation (Break) | 430 %              | ASTM D412   |
| Tear Strength <sup>3</sup> | 140 kN/m           | ASTM D624   |
| Compression Set            |                    | ASTM D395B  |
| 23°C, 22 hr                | 30 %               |             |
| 70°C, 22 hr                | 45 %               |             |

| Hardness                     | Nominal Value Unit | Test Method |
|------------------------------|--------------------|-------------|
| Durometer Hardness (Shore A) | 95                 | ASTM D2240  |

| Thermal                      | Nominal Value Unit | Test Method     |
|------------------------------|--------------------|-----------------|
| Glass Transition Temperature | -28.0 °C           | Internal Method |
| Vicat Softening Temperature  | 127 °C             | ASTM D1525      |
| Softening Point - DMA        | 89 °C              | Internal Method |

| Flammability | Nominal Value Unit | Test Method |
|--------------|--------------------|-------------|
| Flame Rating |                    | UL 94       |
| 0.75 mm      | HB                 |             |
| 3.0 mm       | HB                 |             |



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| Injection              | Nominal Value Unit |
|------------------------|--------------------|
| Drying Temperature     | 110 to 120 °C      |
| Drying Time            | 2.0 to 3.0 hr      |
| Suggested Max Moisture | 0.030 %            |
| Rear Temperature       | 190 to 220 °C      |
| Middle Temperature     | 190 to 220 °C      |
| Front Temperature      | 190 to 220 °C      |
| Nozzle Temperature     | 210 to 225 °C      |
| Extrusion              | Nominal Value Unit |
| Drying Temperature     | 110 to 120 °C      |
| Drying Time            | 2.0 to 3.0 hr      |
| Cylinder Zone 1 Temp.  | 170 to 210 °C      |
| Cylinder Zone 3 Temp.  | 170 to 210 °C      |
| Cylinder Zone 5 Temp.  | 170 to 210 °C      |
| Adapter Temperature    | 200 to 220 °C      |
| Die Temperature        | 195 to 215 °C      |

