

Technical Data Sheet

Type: ESTANE[®] ECO 12T95 is a high performance bio-based thermoplastic polyurethane. With Ca 32% bio-based content. Excellent mechanical properties and abrasion resistance.

Main application: Injection Moulding

| Physical Properties | Value (Metric) | Unit | Test Method |
|-----------------------------------|----------------|-------------------|------------------|
| Hardness | A/1: 95 | Shore A/D | ISO 868 |
| Specific Gravity | 1.17 | g/cm ³ | ISO 2781 |
| Tensile Strength | 36 | MPa | ISO 527-2/5A/200 |
| Ultimate Elongation | 415 | % | ISO 527-2/5A/200 |
| Tensile Stress at: | | | |
| - 50 % Elongation | 10 | MPa | ISO 527-2/5A/200 |
| - 100 % Elongation | 12 | MPa | ISO 527-2/5A/200 |
| - 300 % Elongation | 28 | MPa | ISO 527-2/5A/200 |
| | | | |
| Tear Strength nicked | 142 | kN/m | ISO 34-1B |
| Abrasion Resistance | 28 | mm³ | ISO 4649-A |
| Compression Set | | | |
| 22h@100°C 22h@70°C 70h@70°C | 43 39 43 | % | ASTM D395B |
| Vicat Softening Point | 96 | °C | ISO 306 (A50) |

See reverse side for processing information

Listed values are "typical (average) values" and should /cannot be applied for specification purposes

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Based on extruded strips



Material Preparation

Prior to processing, **ESTANE**[®] **ECO 12T95** be dried at **100°C** for 3-4 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

Recommended Starting <u>INJECTION MOULDING</u> Temperature Profile:

| | °C |
|-----------|-----|
| Feed zone | 40 |
| Zone 1 | 210 |
| Zone 2 | 215 |
| Zone 3 | 220 |
| Zone 4 | 220 |
| Nozzle | 225 |

For further information refer to Lubrizol Advanced Materials processing guides.

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