# GLS AC1-512 Brown

## Thermoplastic Elastomer

### Key Characteristics

| Product Description | | |
|---|---|---|
| GLS AC1-512 Brown is a customized material for injection molding applications. | | |
| **General** | | |
| Material Status | • Commercial: Active | |
| Regional Availability | • Asia Pacific | |
| Features | • Abrasion Resistant | • High Strength |
| Appearance | • Brown | |
| Forms | • Pellets | |
| Processing Method | • Extrusion | • Injection Molding |

### Technical Properties [1]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.21 | 1.21 | ASTM D792 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Stress [2] (300% Strain, 73°F (23°C)) | 1640 psi | 11.3 MPa | ASTM D412 |
| Tensile Strength (Break, 73°F (23°C)) | 3360 psi | 23.2 MPa | ASTM D412 |
| Tensile Elongation [2] (Break, 73°F (23°C)) | 790 % | 790 % | ASTM D412 |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 10 sec) | 87 | 87 | ASTM D2240 |
| **Fill Analysis** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Apparent Viscosity | | | ASTM D3835 |
| 392°F (200°C), 11200 sec^-1 | 51.6 Pa·s | 51.6 Pa·s | |

### Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|---|---|---|
| Drying Temperature | 140 to 194 °F | 60 to 90 °C |
| Drying Time | 2.0 to 4.0 hr | 2.0 to 4.0 hr |
| Suggested Max Moisture | 0.030 % | 0.030 % |
| Rear Temperature | 338 to 374 °F | 170 to 190 °C |
| Middle Temperature | 374 to 410 °F | 190 to 210 °C |
| Front Temperature | 383 to 428 °F | 195 to 220 °C |
| Nozzle Temperature | 375 to 428 °F | 191 to 220 °C |
| Mold Temperature | 68 to 122 °F | 20 to 50 °C |
| Back Pressure | 0.00 to 50.0 psi | 0.00 to 0.345 MPa |
| Screw Speed | 50 to 100 rpm | 50 to 100 rpm |

**Notes**

[1] Typical values are not to be construed as specifications.

[2] 2 hr

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