



TRIVALENCE

TriVALOY 12H (U, R)

Polycarbonate + ABS

General Information

Product Description

Polycarbonate + ABS with high impact.

FEATURES

- Low Flow
- High Impact
- Chemical Resistant
- ROHS/REACH Compliant
- Increased HDT

ADDITIONAL FORMULAS

- Added Release "R"
- Added UV "U"

COLOR

- All
- Opaque/Translucent

General

- | | |
|-----------------------------|---|
| Typical Applications | -Appliance, lawn & garden, automotive, electronics, medical devices, spools, housings |
| Processing Method | -Injection |
| Form(s) | -Pellets |
| Availability | -North America, Europe, Asia, Latin America |

ASTM / ISO Properties¹

Physical

| | Nominal Value | Unit | Test Method |
|----------------------------------|---------------|-------------------|--------------|
| Density | 1.14 | g/cm ³ | ASTM D792 |
| Melt Flow Rate (260°C/5.0kg) | 12 | g/10min | ASTM D1238 |
| Molding Shrinkage - Flow (3.2mm) | 0.5 to 0.7 | % | TVT Internal |
| Outdoor Suitability (QUV) | Pass | | TVT Internal |

Mechanical

| | Nominal Value | Unit | Test Method |
|-----------------------|---------------|-----------|-------------|
| Tensile Strength, yld | 8500 | psi | ASTM D638 |
| Flexural Modulus | 335,000 | psi | ASTM D790 |
| Gardner Impact | 320 | in-lbs | ASTM D5420 |
| Notched Izod Impact | 10 | ft-lbs/in | ASTM D256 |
| Rockwell Hardness | 116 | R-Scale | ASTM D785 |

Thermal

| | Nominal Value | Unit | Test Method |
|--|---------------|----------|-------------|
| Deflection Temperature Under Load (0.45 MPa) | 255 | °F | ASTM D648 |
| Deflection Temperature Under Load (1.8 MPa) | 222 | °F | ASTM D648 |
| Vicat Softening Temperature | 260 | °F | ASTM D1525 |
| CLTE - Flow | 4.5E-5 | in/in/°F | ASTM E831 |

Flammability

| | Nominal Value | Unit | Test Method |
|---------|---------------|------|-------------------|
| 0.06 in | HB | | UL94 TVT Internal |

Recommended Processing Guidance

| | | |
|-----------------------------|------------|-------|
| Drying Temperature | 180 to 215 | °F |
| Drying Time | 2 to 4 | Hours |
| Suggested Max Moisture | 0.02 | % |
| Processing Melt Temperature | 480 to 540 | °F |
| Mold Temperature | 135 to 185 | °F |