

CYROLITE® CG-97

PMMA

Evonik CYRO LLC

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|-------|---------|---------------|
| ASTM Data | | | |
| Melt Flow Index, MFI | 1.8 | g/10min | ASTM D 1238 |
| Temperature | 230 | °C | - |
| Load | 5 | kg | - |
| Mold Shrinkage, MD | 0.006 | mm/mm | ASTM D 955 |

| Mechanical properties | Value | Unit | Test Standard |
|-----------------------------|-------|------|---------------|
| ASTM Data | | | |
| Tensile Modulus | 1900 | MPa | ASTM D 638 |
| Tensile Strength | 36.3 | MPa | ASTM D 638 |
| Elongation at Yield | 3.8 | % | ASTM D 638 |
| Elongation at Break | 13.9 | % | ASTM D 638 |
| Flexural Modulus | 1800 | MPa | ASTM D 790 |
| Flexural Strength | 67.6 | MPa | ASTM D 790 |
| Rockwell Hardness | L 47 | - | ASTM D 785 |
| Izod Impact notched, 1/4 in | 122 | J/m | ASTM D 256 |

| Thermal properties | Value | Unit | Test Standard |
|--------------------------------------|-------|-------|---------------|
| ASTM Data | | | |
| Coefficient of Thermal Expansion, MD | 95 | E-6/K | ASTM D 696 |
| Vicat Temperature | 90 | °C | ASTM D 1525 |

| Optical properties | Value | Unit | Test Standard |
|---------------------|-------|------|---------------|
| ASTM Data | | | |
| Haze | 5 | % | ASTM D 1003 |
| Light Transmittance | 87 | % | ASTM D 1003 |

| Other properties | Value | Unit | Test Standard |
|-------------------------------|-------|-------------------|---------------|
| Water Absorption, Equilibrium | 0.4 | % | ASTM D 570 |
| Density | 1080 | kg/m ³ | ASTM D 792 |
| Bulk Density | 650 | kg/m ³ | - |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 71 | °C | - |
| Pre-drying - Time | 3 - 4 | h | - |
| Melt temperature | 215 - 249 | °C | - |
| Mold temperature | 49 - 82 | °C | - |
| Zone 1 | 210 - 232 | °C | - |
| Zone 2 | 221 - 249 | °C | - |
| Zone 3 | 221 - 249 | °C | - |
| Nozzle temperature | 221 - 249 | °C | - |
| Injection pressure | 41 - 103 | MPa | - |
| Back pressure | 0 - 0.69 | MPa | - |

Characteristics**Processing**

Injection Molding, Other Extrusion

Special Characteristics

High impact or impact modified, Transparent

Features

Color Stability, Light Guiding, Weldable

Certifications

Food contact, Food approval FDA 21 CFR, Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

Applications

Medical

Chemical Resistance

General Chemical Resistance, Oil Resistance, Radiation Resistance

Regional Availability

North America