

# Diakon® LG156

## Polymethyl Methacrylate Acrylic

### Lucite International Inc.

| General           |                      |                     |
|-------------------|----------------------|---------------------|
| Material Status   | • Commercial: Active |                     |
| Availability      | • Europe             |                     |
| Forms             | • Pellets            |                     |
| Processing Method | • Extrusion          | • Injection Molding |

| Physical                                     | Nominal Value Unit     | Test Method |
|----------------------------------------------|------------------------|-------------|
| Density                                      | 1.18 g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR)                    | 15 g/10 min            | ISO 1133    |
| Water Absorption (Equilibrium, 23°C, 50% RH) | 0.30 %                 | ISO 62      |

| Mechanical             | Nominal Value Unit | Test Method |
|------------------------|--------------------|-------------|
| Tensile Stress (Yield) | 75.0 MPa           | ISO 527-2   |
| Tensile Strain (Yield) | 4.0 %              | ISO 527-2   |
| Flexural Modulus       | 2900 MPa           | ISO 178     |
| Flexural Strength      | 105 MPa            | ISO 178     |

| Impact                                 | Nominal Value Unit    | Test Method |
|----------------------------------------|-----------------------|-------------|
| Charpy Notched Impact Strength         | 2.0 kJ/m <sup>2</sup> | ISO 179/1eA |
| Charpy Unnotched Impact Strength       | 18 kJ/m <sup>2</sup>  | ISO 179/1eU |
| Notched Izod Impact Strength           | 1.7 kJ/m <sup>2</sup> | ISO 180/1A  |
| Multi-Axial Instrumented Impact Energy | 0.300 J               | ISO 6603-2  |

| Hardness                    | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Rockwell Hardness (M-Scale) | 85                 | ISO 2039-2  |
| Ball Indentation Hardness   | 175 MPa            | ISO 2039-1  |

| Thermal                     | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Heat Deflection Temperature |                    |             |
| 0.45 MPa, Unannealed        | 91.0 °C            | ISO 75-2/B  |
| 1.8 MPa, Unannealed         | 88.0 °C            | ISO 75-2/A  |
| Vicat Softening Temperature |                    |             |
| --                          | 98.0 °C            | ISO 306/A   |
| --                          | 93.0 °C            | ISO 306/B   |
| CLTE - Flow                 | 0.000071 cm/cm/°C  | ASTM D696   |

| Flammability                   | Nominal Value Unit | Test Method    |
|--------------------------------|--------------------|----------------|
| Flame Rating - UL              | HB                 | UL 94          |
| Glow Wire Ignition Temperature | 650 °C             | IEC 60695-2-13 |

| Optical          | Nominal Value Unit | Test Method |
|------------------|--------------------|-------------|
| Refractive Index | 1.490              | ISO 489     |
| Transmittance    | 92.0 %             | ASTM D1003  |
| Haze             | 0.40 %             | ASTM D1003  |

| Additional Information                                                   |  |  |
|--------------------------------------------------------------------------|--|--|
| Mold Shrinkage, H 961/30: .4 to .7 %.                                    |  |  |
| Craze Resistance (isopropanol), Ineos cantilever test: 30 secs to break. |  |  |

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.