

Acrylic Bead Polymer Lucite® Diakon® LG703

| PROPERTY | TEST METHOD | UNITS | VALUE |
|------------------------------|-------------|-----------------------------|---------|
| THERMAL | | | |
| Melt Flow Index | ISO 1133 | gms/10mins | 7.9 |
| Vicat Softening Point | ISO 306A | °C | 108 |
| | ISO 306B | °C | 102 |
| Heat Deflection Temperature | ISO 75A | °C | 97 |
| | ISO 75B | °C | 100 |
| Coefficient of Expansion | ASTM E831 | cm/cm/°C x 10 ⁻⁵ | 7.1 |
| OPTICAL | | | |
| Light Transmission | ASTM D1003 | % | 92 |
| Haze | ASTM D1003 | % | 0.4 |
| Refractive Index | ISO 489 | - | 1.49 |
| UV Transmission (340nm) | | % | 87.0 |
| MECHANICAL | | | |
| Tensile Strength | ISO 527 | MPa | 80 |
| Elongation | ISO 527 | % | 5 |
| Flexural Modulus | ISO 178 | GPa | 3.0 |
| Flexural Strength | ISO 178 | MPa | 110 |
| Izod Impact Strength | ISO 180/1A | kJ/m ² | 1.8 |
| Charpy Impact Strength | ISO 179/1eA | kJ/m ² | 2.0 |
| | ISO 179/1eU | kJ/m ² | 20 |
| GENERAL | | | |
| Relative Density | ISO 1183 | - | 1.18 |
| Rockwell Hardness | ISO 2039-2 | M Scale | 92 |
| Mould Shrinkage | - | % | 0.4-0.7 |
| Water Absorption | ISO 62 | % | 0.30 |
| Flammability | UL94 | - | HB |
| Glow Wire Test | IEC 695-2-1 | °C | 650 |
| Weight Average Particle Size | Sieve Test | microns | 600 |

The above data represents typical results obtained using standard test pieces, it should not form the basis of specifications. Information contained in this publication (and otherwise supplied to users) is based on our general experience and is given in good faith, but we are unable to guarantee its accuracy or to accept responsibility in respect of factors outside our knowledge or control.

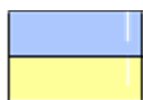
Freedom under patent, copyright and registered designs cannot be assumed.

Users of Lucite Diakon polymer should consult the relevant Material Safety Data Sheet.

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Suggested temperature profile for Injection Moulding Lucite® Diakon® LG703

| °C | FEED THROAT | REAR ZONE | CENTRE ZONE | FRONT ZONE | NOZZLE | MOULD |
|-----|-------------|-----------|-------------|------------|--------|-------|
| 290 | | | | | | |
| 280 | | | | | | |
| 270 | | | | | | |
| 260 | | | | | | |
| 250 | | | | | | |
| 240 | | | | | | |
| 230 | | | | | | |
| 220 | | | | | | |
| 210 | | | | | | |
| 200 | | | | | | |
| 190 | | | | | | |
| 180 | | | | | | |
| 170 | | | | | | |
| 160 | | | | | | |
| 90 | | | | | | |
| 80 | | | | | | |
| 70 | | | | | | |
| 60 | | | | | | |
| 50 | | | | | | |
| 40 | | | | | | |
| 30 | | | | | | |



Suggested moulding temperature limits

Average moulding conditions

Screw speed 80 - 100 rpm

Back pressure 8 - 12 bar

These processing parameters should only be used as a guide, part geometry, thickness, processing temperatures and rates will affect final cycle conditions.