



# LEXANT™ RESIN OQ4320R

REGION AMERICAS

## DESCRIPTION

LEXANT™ OQ4320R resin is a 13 MFR polycarbonate. UV stabilized. Mold release. Optical grade with UV cut-off up to 400 nm, greater optical purity than standard grades. Suitable for sunglass and sunvisor markets.

## TYPICAL PROPERTY VALUES

| PROPERTIES                                   | TYPICAL VALUES | UNITS    | TEST METHODS |
|----------------------------------------------|----------------|----------|--------------|
| <b>MECHANICAL</b>                            |                |          |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 62             | MPa      | ASTM D638    |
| Tensile Strain, yld, Type I, 50 mm/min       | 7              | %        | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min       | 130            | %        | ASTM D638    |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 96             | MPa      | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 2340           | MPa      | ASTM D790    |
| <b>IMPACT</b>                                |                |          |              |
| Izod Impact, notched, 23°C                   | 747            | J/m      | ASTM D256    |
| Falling Dart Impact (D 3029), 23°C           | 169            | J        | ASTM D3029   |
| Instrumented Dart Impact Energy @ peak, 23°C | 63             | J        | ASTM D3763   |
| <b>THERMAL</b>                               |                |          |              |
| Vicat Softening Temp, Rate B/50              | 154            | °C       | ASTM D1525   |
| HDT, 0.45 MPa, 6.4 mm, unannealed            | 137            | °C       | ASTM D648    |
| HDT, 1.82 MPa, 6.4 mm, unannealed            | 132            | °C       | ASTM D648    |
| <b>PHYSICAL</b>                              |                |          |              |
| Specific Gravity                             | 1.2            | -        | ASTM D792    |
| Water Absorption, (23°C/24hrs)               | 0.15           | %        | ASTM D570    |
| Mold Shrinkage, flow, 3.2 mm                 | 0.5 – 0.7      | %        | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf                | 12.5           | g/10 min | ASTM D1238   |
| <b>INJECTION MOLDING</b>                     |                |          |              |
| Drying Temperature                           | 120            | °C       |              |
| Drying Time                                  | 3 – 4          | Hrs      |              |
| Drying Time (Cumulative)                     | 48             | Hrs      |              |
| Maximum Moisture Content                     | 0.02           | %        |              |
| Melt Temperature                             | 295 – 315      | °C       |              |
| Nozzle Temperature                           | 290 – 310      | °C       |              |
| Front - Zone 3 Temperature                   | 295 – 315      | °C       |              |
| Middle - Zone 2 Temperature                  | 280 – 305      | °C       |              |
| Rear - Zone 1 Temperature                    | 270 – 295      | °C       |              |
| Mold Temperature                             | 70 – 95        | °C       |              |
| Back Pressure                                | 0.3 – 0.7      | MPa      |              |
| Screw Speed                                  | 40 – 70        | rpm      |              |
| Shot to Cylinder Size                        | 40 – 60        | %        |              |
| Vent Depth                                   | 0.025 – 0.076  | mm       |              |