



# LEXANT™ RESIN 134R

REGION AMERICAS

## DESCRIPTION

LEXANT™ 134R resin is a 3.5 MFR polycarbonate, MVR of 3. Grade intended for food contact. Mold release. UL94 HB rated. Designed for blow molding or extrusion. Suitable for injection molding. (For FDA, European food contact regulation, Japan, China and other agencies declarations worldwide, including any applied restrictions, contact your local SABIC representative).

## 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 Stress, brk, Type I, 50 mm/min       | 65             | MPa       | ASTM D638    |
| Tensile Strain, yld, Type I, 50 mm/min       | 7              | %         | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min       | 110            | %         | ASTM D638    |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 93             | MPa       | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 2340           | MPa       | ASTM D790    |
| Hardness, Rockwell M                         | 70             | -         | ASTM D785    |
| Hardness, Rockwell R                         | 118            | -         | ASTM D785    |
| Taber Abrasion, CS-17, 1 kg                  | 10             | mg/1000cy | ASTM D1044   |
| <b>IMPACT</b>                                |                |           |              |
| Izod Impact, unnotched, 23°C                 | 3204           | J/m       | ASTM D4812   |
| Izod Impact, notched, 23°C                   | 907            | J/m       | ASTM D256    |
| Tensile Impact Strength, Type S              | 546            | kJ/m²     | ASTM D1822   |
| Falling Dart Impact (D 3029), 23°C           | 169            | J         | ASTM D3029   |
| <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    |
| CTE, -40°C to 95°C, flow                     | 6.84E-05       | 1/°C      | ASTM E831    |
| Specific Heat                                | 1.25           | J/g·°C    | ASTM C351    |
| Thermal Conductivity                         | 0.19           | W/m·°C    | ASTM C177    |
| <b>PHYSICAL</b>                              |                |           |              |
| Specific Gravity                             | 1.2            | -         | ASTM D792    |
| Specific Volume                              | 0.83           | cm³/g     | ASTM D792    |
| Density                                      | 1.19           | g/cm³     | ASTM D792    |
| Water Absorption, (23°C/24hrs)               | 0.15           | %         | ASTM D570    |
| Water Absorption, (23°C/Saturated)           | 0.35           | %         | ASTM D570    |
| Water Absorption, equilibrium, 100°C         | 0.58           | %         | ASTM D570    |
| Mold Shrinkage, flow, 3.2 mm                 | 0.5 – 0.7      | %         | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf                | 3.5            | g/10 min  | ASTM D1238   |
| <b>OPTICAL</b>                               |                |           |              |
| Light Transmission, 2.54 mm                  | 88             | %         | ASTM D1003   |
| Haze, 2.54 mm                                | 1              | %         | ASTM D1003   |

| PROPERTIES                          | TYPICAL VALUES | UNITS | TEST METHODS |
|-------------------------------------|----------------|-------|--------------|
| Refractive Index                    | 1.586          | -     | ASTM D542    |
| ELECTRICAL                          |                |       |              |
| Volume Resistivity                  | >1.E+17        | Ω.cm  | ASTM D257    |
| Dielectric Strength, in air, 3.2 mm | 14.9           | kV/mm | ASTM D149    |
| Relative Permittivity, 50/60 Hz     | 3.17           | -     | ASTM D150    |
| Relative Permittivity, 1 MHz        | 2.96           | -     | ASTM D150    |
| Dissipation Factor, 50/60 Hz        | 0.0009         | -     | ASTM D150    |
| Dissipation Factor, 1 MHz           | 0.01           | -     | ASTM D150    |
| INJECTION MOLDING                   |                |       |              |
| Drying Temperature                  | 120            | °C    |              |
| Drying Time                         | 3 – 4          | Hrs   |              |
| Drying Time (Cumulative)            | 48             | Hrs   |              |
| Maximum Moisture Content            | 0.02           | %     |              |
| Melt Temperature                    | 320 – 345      | °C    |              |
| Nozzle Temperature                  | 315 – 340      | °C    |              |
| Front - Zone 3 Temperature          | 320 – 345      | °C    |              |
| Middle - Zone 2 Temperature         | 310 – 330      | °C    |              |
| Rear - Zone 1 Temperature           | 300 – 320      | °C    |              |
| Mold Temperature                    | 80 – 115       | °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    |              |