

# LEXAN™ HF1130 resin

Polycarbonate  
SABIC Innovative Plastics

Message:  
UV-stabilized. Good clarity, heat resistance, property retention and dimensional stability.

| General Information |                                                              |
|---------------------|--------------------------------------------------------------|
| UL YellowCard       | E121562-220946                                               |
| Additive            | UV Stabilizer                                                |
| Features            | Good Dimensional Stability                                   |
|                     | High Clarity                                                 |
|                     | High Heat Resistance                                         |
| Processing Method   | Injection Molding                                            |
| Multi-Point Data    | Coefficient of Thermal Expansion vs. Temperature (ASTM E831) |
|                     | Flexural DMA (ASTM D4065)                                    |
|                     | Shear DMA (ASTM D4065)                                       |
|                     | Specific Heat vs. Temperature (ASTM D3417)                   |
|                     | Tensile Fatigue                                              |
|                     | Tensile Stress vs. Strain (ASTM D638)                        |
|                     | Thermal Conductivity vs. Temperature (ASTM E1530)            |
|                     | Viscosity vs. Shear Rate (ASTM D3835)                        |

| Physical                                             | Nominal Value | Unit              | Test Method     |
|------------------------------------------------------|---------------|-------------------|-----------------|
| Specific Gravity                                     | 1.20          | g/cm <sup>3</sup> | ASTM D792       |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)             | 25            | g/10 min          | ASTM D1238      |
| Molding Shrinkage - Flow (3.20 mm)                   | 0.50 to 0.70  | %                 | Internal Method |
| Mechanical                                           | Nominal Value | Unit              | Test Method     |
| Tensile Strength <sup>1</sup>                        |               |                   | ASTM D638       |
| Yield                                                | 62.1          | MPa               |                 |
| Break                                                | 65.5          | MPa               |                 |
| Tensile Elongation <sup>2</sup> (Break)              | 110           | %                 | ASTM D638       |
| Flexural Modulus <sup>3</sup> (50.0 mm Span)         | 2310          | MPa               | ASTM D790       |
| Flexural Strength <sup>4</sup> (Yield, 50.0 mm Span) | 93.1          | MPa               | ASTM D790       |
| Impact                                               | Nominal Value | Unit              | Test Method     |
| Notched Izod Impact (23°C)                           | 640           | J/m               | ASTM D256       |
| Instrumented Dart Impact (23°C, Energy at Peak Load) | 54.2          | J                 | ASTM D3763      |
| Tensile Impact Strength <sup>5</sup>                 | 378           | kJ/m <sup>2</sup> | ASTM D1822      |
| Thermal                                              | Nominal Value | Unit              | Test Method     |

|                                                                  |                   |      |             |
|------------------------------------------------------------------|-------------------|------|-------------|
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm) | 127               | °C   | ASTM D648   |
| RTI Elec                                                         | 130               | °C   | UL 746      |
| RTI Imp                                                          | 130               | °C   | UL 746      |
| RTI Str                                                          | 130               | °C   | UL 746      |
| Flammability                                                     | Nominal Value     |      | Test Method |
| Flame Rating (1.20 mm)                                           | V-2               |      | UL 94       |
| Optical                                                          | Nominal Value     | Unit | Test Method |
| Transmittance (2540 μm)                                          | 88.0              | %    | ASTM D1003  |
| Haze (2540 μm)                                                   | 1.0               | %    | ASTM D1003  |
| Injection                                                        | Nominal Value     | Unit |             |
| Drying Temperature                                               | 121               | °C   |             |
| Drying Time                                                      | 3.0 to 4.0        | hr   |             |
| Drying Time, Maximum                                             | 48                | hr   |             |
| Suggested Max Moisture                                           | 0.020             | %    |             |
| Suggested Shot Size                                              | 40 to 60          | %    |             |
| Rear Temperature                                                 | 249 to 271        | °C   |             |
| Middle Temperature                                               | 260 to 282        | °C   |             |
| Front Temperature                                                | 271 to 293        | °C   |             |
| Nozzle Temperature                                               | 266 to 288        | °C   |             |
| Processing (Melt) Temp                                           | 271 to 293        | °C   |             |
| Mold Temperature                                                 | 71.1 to 93.3      | °C   |             |
| Back Pressure                                                    | 0.345 to 0.689    | MPa  |             |
| Screw Speed                                                      | 40 to 70          | rpm  |             |
| Vent Depth                                                       | 0.025 to 0.076    | mm   |             |
| NOTE                                                             |                   |      |             |
| 1.                                                               | Type I, 50 mm/min |      |             |
| 2.                                                               | Type I, 50 mm/min |      |             |
| 3.                                                               | 1.3 mm/min        |      |             |
| 4.                                                               | 1.3 mm/min        |      |             |
| 5.                                                               | Type S            |      |             |

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