

# LEXAN™ FXM121R resin

Polycarbonate

SABIC Innovative Plastics Europe

## Message:

PC in special effects colors. Metallic and pearlescent additives. Color package may affect performance.

| General Information                                  |                   |                   |                 |
|------------------------------------------------------|-------------------|-------------------|-----------------|
| Processing Method                                    | Injection molding |                   |                 |
| 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)             | 18                | g/10 min          | ASTM D1238      |
| Molding Shrinkage - Flow (3.20 mm)                   | 0.50 - 0.70       | %                 | Internal method |
| Outdoor Suitability                                  | f2                |                   | UL 746C         |
| Mechanical                                           | Nominal Value     | Unit              | Test Method     |
| Tensile Modulus <sup>1</sup>                         | 2340              | MPa               | ASTM D638       |
| Tensile Strength <sup>2</sup>                        |                   |                   | ASTM D638       |
| Yield                                                | 61.0              | MPa               | ASTM D638       |
| Fracture                                             | 57.9              | MPa               | ASTM D638       |
| Tensile Elongation <sup>3</sup>                      |                   |                   | ASTM D638       |
| Yield                                                | 6.2               | %                 | ASTM D638       |
| Fracture                                             | 90                | %                 | ASTM D638       |
| Flexural Modulus <sup>4</sup> (50.0 mm Span)         | 2380              | MPa               | ASTM D790       |
| Flexural Strength <sup>5</sup> (Yield, 50.0 mm Span) | 93.1              | MPa               | ASTM D790       |
| Impact                                               | Nominal Value     | Unit              | Test Method     |
| Notched Izod Impact (23°C)                           | 110               | J/m               | ASTM D256       |
| Instrumented Dart Impact (23°C, Total Energy)        | 48.6              | J                 | ASTM D3763      |
| Thermal                                              | Nominal Value     | Unit              | Test Method     |
| Deflection Temperature Under Load                    |                   |                   | ASTM D648       |
| 0.45 MPa, unannealed, 3.20mm                         | 135               | °C                | ASTM D648       |
| 1.8 MPa, unannealed, 3.20mm                          | 124               | °C                | ASTM D648       |
| RTI Elec                                             | 80.0              | °C                | UL 746          |
| RTI Imp                                              | 80.0              | °C                | UL 746          |
| RTI                                                  | 80.0              | °C                | UL 746          |
| Electrical                                           | Nominal Value     |                   | Test Method     |
| Comparative Tracking Index (CTI)                     | PLC 2             |                   | UL 746          |
| High Amp Arc Ignition (HAI)                          | PLC 1             |                   | UL 746          |
| High Voltage Arc Tracking Rate (HVTR)                | PLC 2             |                   | UL 746          |
| Hot-wire Ignition (HWI)                              | PLC 2             |                   | UL 746          |
| Flammability                                         | Nominal Value     |                   | Test Method     |

| Flame Rating (0.711 mm) | HB            | UL 94 |
|-------------------------|---------------|-------|
| Injection               | Nominal Value | Unit  |
| Drying Temperature      | 121           | °C    |
| Drying Time             | 3.0 - 4.0     | hr    |
| Drying Time, Maximum    | 48            | hr    |
| Suggested Max Moisture  | 0.020         | %     |
| Suggested Shot Size     | 40 - 60       | %     |
| Rear Temperature        | 260 - 282     | °C    |
| Middle Temperature      | 271 - 293     | °C    |
| Front Temperature       | 282 - 304     | °C    |
| Nozzle Temperature      | 277 - 299     | °C    |
| Processing (Melt) Temp  | 282 - 304     | °C    |
| Mold Temperature        | 71.1 - 93.3   | °C    |
| Back Pressure           | 0.345 - 0.689 | MPa   |
| Screw Speed             | 40 - 70       | rpm   |
| Vent Depth              | 0.025 - 0.076 | mm    |

#### NOTE

1. 50 mm/min
2. Type 1, 50mm/min
3. Type 1, 50mm/min
4. 1.3 mm/min
5. 1.3 mm/min

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#### Recommended distributors for this material

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