

# EMERGE™ PC 8731

Advanced Resin

Trinseo

Message:

EMERGE PC 8731 Advanced Resin is an ignition-resistant, 10% glass reinforced, and UV resistant polycarbonate resin. EMERGE PC 8731 is rated as f1 resin by Underwriters Laboratory. This resin contains no bromine, chlorine, or phosphate additives. It is a medium flow PC resin with a mold release system, intended for injection molding applications.

- Applications
- Information technology equipment
  - Electrical parts
  - Other structural/internal parts

| General Information                                   |                                    |                   |             |
|---|------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                | Glass Fiber,10% Filler by Weight   |                   |             |
| Additive  | Mold Release                       |                   |             |
| Features  | Bromine Free                       |                   |             |
|   | Chlorine Free                      |                   |             |
|   | Flame Retardant                    |                   |             |
|   | Good UV Resistance                 |                   |             |
|   | Medium Flow                        |                   |             |
| Uses  | Electrical/Electronic Applications |                   |             |
|   | Structural Parts                   |                   |             |
| Forms   | Pellets                            |                   |             |
| Processing Method                                     | Injection Molding                  |                   |             |
| Physical  | Nominal Value                      | Unit              | Test Method |
| Specific Gravity                                      | 1.28                               | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)              | 13                                 | g/10 min          | ASTM D1238  |
| Molding Shrinkage - Flow                              | 0.40 to 0.60                       | %                 | ASTM D955   |
| Mechanical  | Nominal Value                      | Unit              | Test Method |
| Tensile Modulus (3.20 mm, Injection Molded)           | 4000                               | MPa               | ASTM D638   |
| Tensile Strength (Break, 3.20 mm, Injection Molded)   | 60.0                               | MPa               | ASTM D638   |
| Tensile Elongation (Break, 3.20 mm, Injection Molded) | 4.0                                | %                 | ASTM D638   |
| Flexural Modulus (3.20 mm, Injection Molded)          | 3300                               | MPa               | ASTM D790   |
| Impact  | Nominal Value                      | Unit              | Test Method |
| Notched Izod Impact (23°C, 3.20 mm, Injection Molded) | 110                                | J/m               | ASTM D256   |
| Thermal   | Nominal Value                      | Unit              | Test Method |
| Deflection Temperature Under Load                     |                                    |                   | ASTM D648   |

| 0.45 MPa, Unannealed      | 141           | °C          |
|---------------------------|---------------|-------------|
| 1.8 MPa, Unannealed       | 133           | °C          |
| 1.8 MPa, Annealed         | 139           | °C          |
| Flammability              | Nominal Value | Test Method |
| Flame Rating <sup>1</sup> |               | UL 94       |
| 1.50 mm                   | V-0           |             |
| 3.00 mm                   | 5VA           |             |
| Injection                 | Nominal Value | Unit        |
| Drying Temperature        | 120           | °C          |
| Drying Time               | 3.0 to 4.0    | hr          |
| Processing (Melt) Temp    | 290 to 315    | °C          |
| Mold Temperature          | 80.0 to 115   | °C          |
| NOTE                      |               |             |

1.

This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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