

# Altuglas® MI-8E

## Polymethyl Methacrylate Acrylic

### Altuglas International of Arkema Inc.

| General                                            |                        |             |
|----------------------------------------------------|------------------------|-------------|
| Material Status                                    | • Commercial: Active   |             |
| Availability                                       | • Asia Pacific         | • Europe    |
| Forms                                              | • Granules             |             |
| Physical                                           | Nominal Value Unit     | Test Method |
| Density                                            | 1.16 g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)           | 0.70 g/10 min          | ISO 1133    |
| Molding Shrinkage - Flow                           | 0.20 to 0.80 %         | ASTM D955   |
| Water Absorption (Equilibrium, 23°C, 50% RH)       | 0.34 %                 | ISO 62      |
| Mechanical                                         | Nominal Value Unit     | Test Method |
| Tensile Stress (Break, 23°C)                       | 45.0 MPa               | ISO 527-2   |
| Tensile Strain (Break, 23°C)                       | 35 %                   | ISO 527-2   |
| Flexural Modulus (23°C)                            | 2200 MPa               | ISO 178     |
| Flexural Strength (23°C)                           | 72.5 MPa               | ISO 178     |
| Compressive Stress (23°C)                          | 64.0 MPa               | ISO 604     |
| Impact                                             | Nominal Value Unit     | Test Method |
| Charpy Notched Impact Strength (23°C)              | 4.0 kJ/m <sup>2</sup>  | ISO 179/2C  |
| Charpy Unnotched Impact Strength (23°C)            | 45 kJ/m <sup>2</sup>   | ISO 179/2U  |
| Notched Izod Impact Strength (23°C)                | 4.5 kJ/m <sup>2</sup>  | ISO 180/1A  |
| Hardness                                           | Nominal Value Unit     | Test Method |
| Rockwell Hardness (M-Scale)                        | 56                     | ASTM D785   |
| Thermal                                            | Nominal Value Unit     | Test Method |
| Heat Deflection Temperature<br>1.8 MPa, Unannealed | 90.0 °C                | ISO 75-2/A  |
| Vicat Softening Temperature                        | 101 °C                 | ISO 306/B   |
| CLTE - Flow (-30 to 23°C)                          | 0.000090 cm/cm/°C      | ASTM D696   |
| Electrical                                         | Nominal Value Unit     | Test Method |
| Surface Resistivity                                | > 1.0E+14 ohm          | ASTM D257   |
| Volume Resistivity                                 | > 1.0E+15 ohm·cm       | ASTM D257   |
| Dielectric Strength                                | 17 kV/mm               | ASTM D149   |
| Dielectric Constant (60 Hz)                        | 3.85                   | ASTM D150   |
| Dissipation Factor (1 MHz)                         | 0.040                  | ASTM D150   |
| Flammability                                       | Nominal Value Unit     | Test Method |
| Flame Rating - UL                                  | HB                     | UL 94       |
| Optical                                            | Nominal Value Unit     | Test Method |
| Refractive Index <sup>2</sup>                      | 1.490                  | ISO 489     |
| Transmittance                                      | 91.0 %                 | ASTM D1003  |
| Haze                                               | 1.5 %                  | ASTM D1003  |
| Injection                                          | Nominal Value Unit     |             |
| Drying Temperature                                 | 85.0 °C                |             |
| Drying Time                                        | 4.0 hr                 |             |
| Processing (Melt) Temp                             | 235 to 245 °C          |             |
| Mold Temperature                                   | 80.0 to 90.0 °C        |             |

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Method B