

## Technical Information


**TRINSEO™**

## ALTUGLAS™ CR 8

### Overview

OVERVIEW : ALTUGLAS™ chemical resistant resins offer that unique set of properties: all the exceptional advantages of PMMA combined with greater chemical resistance against various damaging agents to increase its lifespan. Our acrylic resins are available in glossy and textured versions providing also good impact resistance. They are able to meet typical standards such as EN13559 for the sanitary ware market. These products can be adapted to injection molding and extrusion processes.

ALTUGLAS™ CR-8 : This grade is an impact-modified PMMA with excellent chemical resistance..

#### MARKETS / APPLICATIONS :

Automotive & Transportation  
Health, Hygiene & Beauty  
Building & Construction

| Physical                                     | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
|----------------------------------------------|---------------------------|------------------------|--------------|
| Density                                      | 1.16 g/cm <sup>3</sup>    | 1.16 g/cm <sup>3</sup> | ISO 1183     |
| Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)     | 0.60 g/10 min             | 0.60 g/10 min          | ISO 1133     |
| Molding Shrinkage - Flow                     | 2.0E-3 to 8.0E-3 in/in    | 0.20 to 0.80 %         | ASTM D955    |
| Water Absorption                             |                           |                        | ISO 62       |
| Equilibrium, 73°F (23°C), 50% RH             | 0.34 %                    | 0.34 %                 |              |
| Mechanical                                   | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Tensile Stress                               |                           |                        | ISO 527-2/50 |
| Yield, 73°F (23°C)                           | 8270 psi                  | 57.0 MPa               |              |
| Break, 73°F (23°C)                           | 5370 psi                  | 37.0 MPa               |              |
| Tensile Strain                               |                           |                        | ISO 527-2/50 |
| Yield, 73°F (23°C)                           | 5.0 %                     | 5.0 %                  |              |
| Break, 73°F (23°C)                           | 37 %                      | 37 %                   |              |
| Flexural Modulus (73°F (23°C))               | 319000 psi                | 2200 MPa               | ISO 178      |
| Impact                                       | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Charpy Notched Impact Strength (73°F (23°C)) | 2.1 ft-lb/in <sup>2</sup> | 4.5 kJ/m <sup>2</sup>  | ISO 179/1eA  |
| Charpy Unnotched Impact Strength             |                           |                        | ISO 179/1eU  |
| 73°F (23°C)                                  | 24 ft-lb/in <sup>2</sup>  | 50 kJ/m <sup>2</sup>   |              |
| Notched Izod Impact Strength (73°F (23°C))   | 2.1 ft-lb/in <sup>2</sup> | 4.5 kJ/m <sup>2</sup>  | ISO 180/1A   |
| Hardness                                     | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Rockwell Hardness (M-Scale)                  | 74                        | 74                     | ASTM D785    |
| Thermal                                      | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Deflection Temperature Under Load            |                           |                        | ISO 75-2/A   |
| 264 psi (1.8 MPa), Annealed                  | 194 °F                    | 90.0 °C                |              |
| Vicat Softening Temperature                  | > 214 °F                  | > 101 °C               | ISO 306/B50  |
| CLTE - Flow (-22 to 73°F (-30 to 23°C))      | 5.0E-5 in/in/°F           | 9.0E-5 cm/cm/°C        | ASTM D696    |
| Flammability                                 | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Flame Rating                                 | HB                        | HB                     | UL 94        |
| Optical                                      | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Refractive Index                             |                           |                        |              |
| --                                           | 1.490                     | 1.490                  | ASTM D542    |
| -- 1                                         | 1.490                     | 1.490                  | ISO 489      |
| Light Transmittance                          | 91.0 %                    | 91.0 %                 | ASTM D1003   |
| Haze                                         | 1.50 %                    | 1.50 %                 | ASTM D1003   |

| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80 °C              |
| Drying Time            | 4.0 to 6.0 hr           | 4.0 to 6.0 hr      |
| Rear Temperature       | 428 to 464 °F           | 220 to 240 °C      |
| Middle Temperature     | 446 to 482 °F           | 230 to 250 °C      |
| Front Temperature      | 464 to 500 °F           | 240 to 260 °C      |
| Nozzle Temperature     | 464 to 500 °F           | 240 to 260 °C      |
| Processing (Melt) Temp | 464 to 500 °F           | 240 to 260 °C      |
| Mold Temperature       | 158 to 176 °F           | 70 to 80 °C        |

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

<sup>1</sup> Method B

## Technical Information



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