

## Technical Information



# SOLARKOTE™ A210M

## Overview

SOLARKOTE™ A210M is an impact modified specialty grade thermoplastic acrylic resin formulated for capstock coextrusion. It is characterized by good balance between melt flow and chemical resistance. Key applications include building & construction and custom sheet markets, where matte texture and scratch resistance are desired. Primarily used as cap layer for ABS, acrylic, composite, and pultruded substrates.

| Physical                                       | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
|------------------------------------------------|-----------------------------------|------------------------|-------------------------|
| Density                                        | 1.16 g/cm <sup>3</sup>            | 1.16 g/cm <sup>3</sup> | ASTM D792               |
| Melt Mass-Flow Rate (MFR)                      | 1.3 g/10 min                      | 1.3 g/10 min           | ASTM D1238              |
| Water Absorption (24 hr)                       | 0.46 %                            | 0.46 %                 | ASTM D570               |
| Mechanical                                     | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
| Tensile Modulus                                | 265000 psi                        | 1830 MPa               | ASTM D638               |
| Tensile Strength (Yield)                       | 5500 psi                          | 37.9 MPa               | ASTM D638               |
| Tensile Elongation (Break)                     | 40 %                              | 40 %                   | ASTM D638               |
| Flexural Modulus                               | 260000 psi                        | 1790 MPa               | ASTM D790               |
| Flexural Strength (Yield)                      | 9500 psi                          | 65.5 MPa               | ASTM D790               |
| Impact                                         | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
| Notched Izod Impact                            | 1.0 ft-lb/in                      | 53 J/m                 | ASTM D256               |
| Hardness                                       | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
| Rockwell Hardness (M-Scale)                    | 40                                | 40                     | ASTM D785               |
| Pencil Hardness                                | F-2H                              | F-2H                   | ASTM D3363              |
| Thermal                                        | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
| Deflection Temperature Under Load <sup>1</sup> |                                   |                        | ASTM D648               |
| 66 psi (0.45 MPa), Annealed                    | 199 °F                            | 93.0 °C                |                         |
| 264 psi (1.8 MPa), Annealed                    | 190 °F                            | 88.0 °C                |                         |
| Vicat Softening Temperature                    |                                   |                        |                         |
| --                                             | 217 °F                            | 103 °C                 | ASTM D1525 <sup>2</sup> |
| --                                             | 201 °F                            | 94.0 °C                | ASTM D1525 <sup>3</sup> |
| Thermal Conductivity                           | 1.5 Btu-in/hr/ft <sup>2</sup> /°F | 0.22 W/m/K             | ASTM C177               |
| Optical                                        | Nominal Value (English)           | Nominal Value (SI)     | Test Method             |
| Light Transmittance (125.0 mil (3175 µm))      | 91.0 %                            | 91.0 %                 | ASTM D1003              |
| Haze (125.0 mil (3175 µm))                     | 5.00 %                            | 5.00 %                 | ASTM D1003              |

## Additional Information

SOLARKOTE™ Acrylic formulations are designed to effectively screen out high energy UV wavelength at 0.006" (6.0 mil) thickness.

## Extrusion Notes

Recommended Drying Conditions: 180 °F (82 °C) for a minimum of 4 hours at -40°F (-40°C) dew point or < 0.06% moisture content.

## 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> Annealing Cycle: 4 hours @ 176 °F (80 °C)

<sup>2</sup> Rate A (50°C/h), Loading 1 (10 N)

<sup>3</sup> Rate A (50°C/h), Loading 2 (50 N)

## Technical Information



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