

## Dow AIM® 4900 High Impact Styrenic Resin

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Impact Modified

### Material Notes:

AIM® 4900 advanced styrenic resin for extrusion and thermoforming applications is designed to offer the processability of high impact polystyrene and the gloss and practical toughness of high gloss ABS. It can be processed at lower temperatures than ABS. When used unmodified for the manufacture of food contact articles AIM 4900 complies with the US Food, Drug and Cosmetic Act and Food Additive Regulations 21 CFR 177.1640. The statute and regulations should be consulted for complete details. Data provided by Dow Chemical.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Dow-AIM-4900-High-Impact-Styrenic-Resin.php](http://www.lookpolymers.com/polymer_Dow-AIM-4900-High-Impact-Styrenic-Resin.php)

| Physical Properties   | Metric       | English                   | Comments  |
|-----------------------|--------------|---------------------------|-----------|
| Density               | 1.04 g/cc    | 0.0376 lb/in <sup>3</sup> | ASTM Data |
| Linear Mold Shrinkage | 0.0055 cm/cm | 0.0055 in/in              |           |

| Mechanical Properties      | Metric                         | English                            | Comments                       |
|----------------------------|--------------------------------|------------------------------------|--------------------------------|
| Tensile Strength, Ultimate | 15.9 MPa                       | 2310 psi                           | ASTM Data                      |
| Tensile Strength, Yield    | 22.1 MPa                       | 3210 psi                           | ASTM Data                      |
| Elongation at Break        | 40 %                           | 40 %                               | ASTM Data                      |
| Tensile Modulus            | 1.79 GPa                       | 260 ksi                            | ASTM Data                      |
| Izod Impact, Notched       | 1.23 J/cm                      | 2.30 ft-lb/in                      | ASTM Data                      |
| Impact Test                | 23.7 J<br>@Temperature 23.0 °C | 17.5 ft-lb<br>@Temperature 73.4 °F | Instrumented Dart Total Energy |

| Thermal Properties            | Metric                               | English                                | Comments  |
|-------------------------------|--------------------------------------|--|-----------|
| CTE, linear, Parallel to Flow | 81.0 µm/m-°C<br>@Temperature 20.0 °C | 45.0 µin/in-°F<br>@Temperature 68.0 °F | ASTM data |
| Vicat Softening Point         | 101 °C                               | 214 °F                                 |           |
| Flammability, UL94            | HB<br>@Thickness 1.47 mm             | HB<br>@Thickness 0.0579 in             |           |

| Optical Properties | Metric | English | Comments           |
|--------------------|--------|---------|--------------------|
| Gloss              | 85 %   | 85 %    | Gardner Gloss, 60° |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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