

## Technical Data Sheet

### *Diamond* ABS 9501 6A082 ROYAL BLUE



Acrylonitrile Butadiene Styrene

#### Product Description

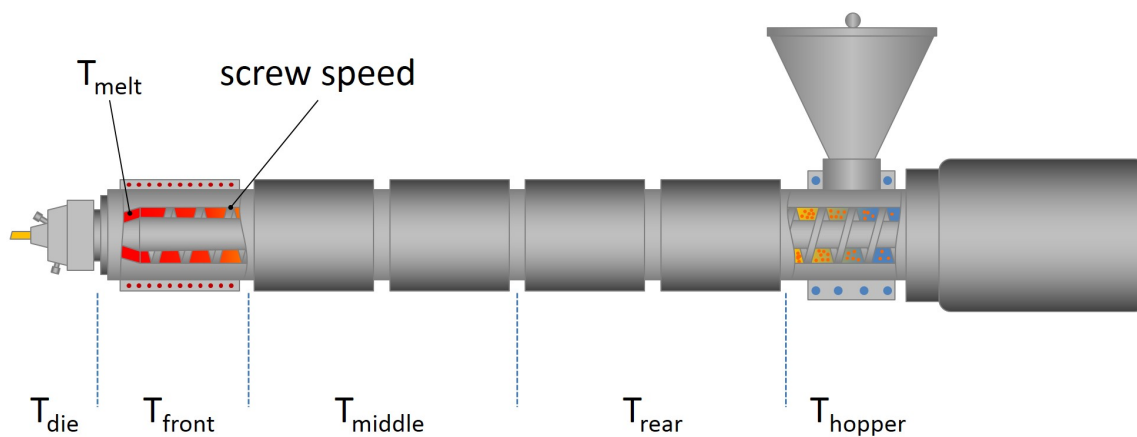
*Diamond* ABS 9501 6A082 ROYAL BLUE is a Acrylonitrile Butadiene Styrene material and is typically used in Extrusion, Sheet Extrusion, Thermoforming applications. Features include: Ultra High Impact Resistance.

#### Regulatory Status

For regulatory compliance information, see ABS 9501 6A082 ROYAL BLUE [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                          |                                                        |
|--------------------------|--------------------------------------------------------|
| <b>Status</b>            | Discontinued                                           |
| <b>Availability</b>      | North America                                          |
| <b>Processing Method</b> | Extrusion; Sheet Extrusion                             |
| <b>Attribute</b>         | Ultra High Impact Resistance                           |
| <b>Forms</b>             | Pellets                                                |
| <b>Appearance</b>        | Colors Available                                       |
| <b>Application</b>       | Marine Applications; Sheet; Thermoforming Applications |

| Typical Properties                                                | Nominal Value | Units             | Test Method |
|-------------------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                                   |               |                   |             |
| Melt Flow Rate, (200 °C/5.0 kg, Procedure A)                      | 0.40 to 1.2   | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                                        | 1.04          | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                                                 |               |                   |             |
| Tensile Strength at Yield, (51 mm/min)                            | 43.0          | MPa               | ASTM D638   |
| Tensile Strength at Break                                         | 34            | MPa               | ASTM D638   |
| Flexural Modulus, (1.3 mm/min, 2% Secant)                         | 2300          | MPa               | ASTM D790   |
| Tensile Elongation at Break                                       | 20            | %                 | ASTM D638   |
| Flexural Strength                                                 | 69            | MPa               | ASTM D790   |
| <b>Impact</b>                                                     |               |                   |             |
| Notched Izod Impact                                               |               |                   |             |
| (23 °C)                                                           | 520           | J/m               | ASTM D256   |
| (-40 °C)                                                          | 150           | J/m               | ASTM D256   |
| <b>Hardness</b>                                                   |               |                   |             |
| Rockwell Hardness, (R-Scale)                                      | 101           |                   | ASTM D785   |
| <b>Thermal</b>                                                    |               |                   |             |
| Vicat Softening Temperature, (Loading 1 (10 N))                   | 105           | °C                | ASTM D1525  |
| Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)   | 95.0          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm) | 75.6          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm)  | 90.7          | °C                | ASTM D648   |
| <b>UL Information</b>                                             |               |                   |             |
| Flame Rating, (1.5 mm)                                            | HB            |                   | UL 94       |
| UL File Number                                                    | E119088       |                   |             |



| Extrusion Parameters   | Nominal Value | Units |
|------------------------|---------------|-------|
| Cylinder Zone 1 Temp.  | 177 to 185    | °C    |
| Drying Time            | 2.0 to 4.0    | hr    |
| Cylinder Zone 5 Temp.  | 218 to 232    | °C    |
| Suggested Max Moisture | <0.10         | %     |
| Cylinder Zone 3 Temp.  | 199 to 210    | °C    |
| Drying Temperature     | 80 to 85      | °C    |
| Cylinder Zone 2 Temp.  | 191 to 196    | °C    |
| Cylinder Zone 4 Temp.  | 213 to 218    | °C    |

## Notes

These are typical property values not to be construed as specification limits. The typical values for this product may have been tested on a natural grade.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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