

## Technical Data Sheet

### Diamond ASA C1030.1789 White



Acrylonitrile Styrene Acrylate

#### Product Description

Diamond ASA C1030.1789 White is a Acrylonitrile Styrene Acrylate material and is typically used in Extrusion, Injection Molding applications. Features include: Good Colorability, and Good Weather Resistance.

#### Regulatory Status

For regulatory compliance information, see *Diamond ASA C1030.1789 White* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |                                            |
|-------------------|--------------------------------------------|
| Status            | Commercial: Active                         |
| Availability      | North America                              |
| Processing Method | Extrusion; Injection Molding               |
| Attribute         | Good Colorability; Good Weather Resistance |

| Typical Properties                                                                 | Nominal Value | Units             | Test Method |
|------------------------------------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                                                    |               |                   |             |
| Melt Flow Rate, (220 °C/10.0 kg, Procedure A)                                      | 10            | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                                                         | 1.1           | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                                                                  |               |                   |             |
| Tensile Strength at Yield, (51 mm/min, Type I)                                     | 45.9          | MPa               | ASTM D638   |
| Flexural Modulus, (1.3 mm/min, 3.18 mm, Method I (3 point load), 50.8 mm, Tangent) | 1970          | MPa               | ASTM D790   |
| Tensile Elongation at Break, (51 mm/min, Type I)                                   | 30            | %                 | ASTM D638   |
| <b>Impact</b>                                                                      |               |                   |             |
| Notched Izod Impact, (23 °C, 3.18 mm)                                              | 120           | J/m               | ASTM D256   |
| <b>Thermal</b>                                                                     |               |                   |             |
| Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)                  | 67.8          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm, Injection Molded) | 81.1          | °C                | ASTM D648   |



| <b>Injection Parameters</b> | <b>Nominal Value</b> | <b>Units</b> |
|-----------------------------|----------------------|--------------|
| Drying Time                 | 4.0 to 6.0           | hr           |
| Drying Temperature          | 80 to 85             | °C           |
| Suggested Max Moisture      | 0.02                 | %            |
| Nozzle Temperature          | 220 to 260           | °C           |
| Processing (Melt) Temp      | 220 to 260           | °C           |
| Front Temperature           | 235 to 260           | °C           |
| Suggested Shot Size         | 40 to 70             | %            |
| Middle Temperature          | 232 to 260           | °C           |
| Rear Temperature            | 230 to 260           | °C           |
| Injection Rate              | Fast                 |              |
| Back Pressure               | 0.517 to 1.03        | MPa          |
| Mold Temperature            | 71 to 82             | °C           |

## Notes

These are typical property values not to be construed as specification limits.

## 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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