

Technical Data Sheet

Diamond ASA S210 1003 UVNAT

Acrylonitrile Styrene Acrylate



Product Description

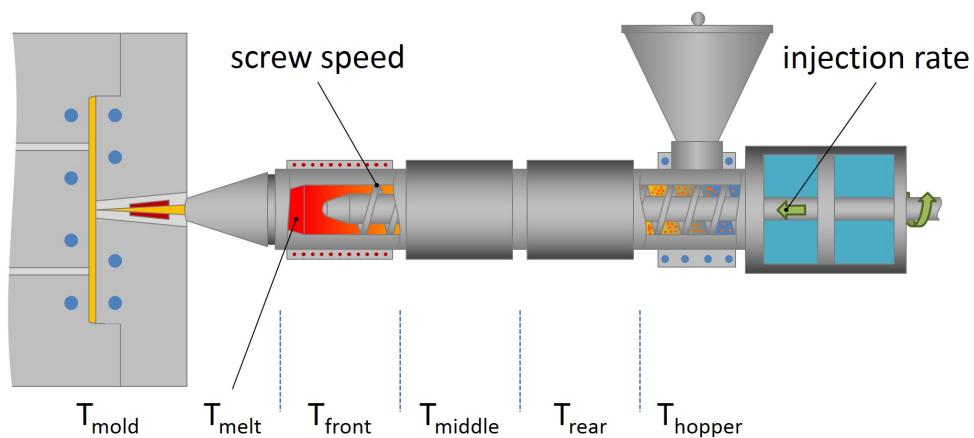
Diamond ASA S210 1003 UVNAT is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Weather Resistance, and Ultra High Impact Resistance.

Regulatory Status

For regulatory compliance information, see ASA S210 1003 UVNAT [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Processing Method	Injection Molding
Attribute	Good Weather Resistance; Ultra High Impact Resistance
Forms	Pellets

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(200 °C/5.0 kg, Procedure A)	0.90	g/10 min	ASTM D1238
(230 °C/3.8 kg, Procedure A)	2.7	g/10 min	ASTM D1238
Density - Specific Gravity	1.07	g/cm ³	ASTM D792
Mechanical			
Tensile Strength at Yield, (51 mm/min)	35.2	MPa	ASTM D638
Flexural Modulus, (1.3 mm/min, Tangent)	1880	MPa	ASTM D790
Impact			
Notched Izod Impact, (23 °C, 3.18 mm)	450	J/m	ASTM D256
Hardness			
Rockwell Hardness, (R-Scale)	88		ASTM D785
Thermal			
Vicat Softening Temperature, (Loading 1 (10 N))	100	°C	ASTM D1525
Deflection Temperature Under Load Annealed (264 psi), (3.18 mm)	91.1	°C	ASTM D648
Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm)	72.2	°C	ASTM D648



Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 85	°C
Suggested Max Moisture	0.1	%
Nozzle Temperature	220 to 272	°C
Processing (Melt) Temp	220 to 272	°C
Front Temperature	235 to 272	°C
Suggested Shot Size	40 to 70	%
Middle Temperature	232 to 265	°C
Rear Temperature	230 to 260	°C
Injection Rate	Fast	
Back Pressure	0.517 to 1.03	MPa
Mold Temperature	40 to 80	°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/>.

© LyondellBasell Industries Holdings, B.V. 2018

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.