

# Diamond ASA S170 1795 UVBLK

## LyondellBasell Industries - Acrylonitrile Styrene Acrylate

### General Information

#### Product Description

Diamond ASA S170 1795 UVBLK is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Weather Resistance, and High Impact Resistance.

#### General

Features	<ul style="list-style-type: none"> <li>• Good Weather Resistance</li> <li>• High Impact Resistance</li> </ul>
Forms	<ul style="list-style-type: none"> <li>• Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>• Injection Molding</li> </ul>

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.06		ASTM D792
Density (73°F)	1.06	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	12	g/10 min	
230°C/3.8 kg	2.4	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	12	g/10 min	
230°C/3.8 kg	2.4	g/10 min	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength - Flow <sup>2</sup> (Yield, 73°F, Injection Molded)	5930	psi	ASTM D638
Tensile Stress - Flow (Yield, Injection Molded)	5770	psi	ISO 527-2/50
Flexural Modulus - Chord, Flow (73°F, Injection Molded)	292000	psi	ASTM D790
Flexural Modulus - Chord, Flow (73°F, Injection Molded)	297000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F, Injection Molded	4.8	ft·lb/in <sup>2</sup>	
73°F, Injection Molded	12	ft·lb/in <sup>2</sup>	
Notched Izod Impact - Flow			ASTM D256
-22°F, Injection Molded	2.4	ft·lb/in	
73°F, Injection Molded	7.5	ft·lb/in	
Notched Izod Impact Strength			ISO 180
-22°F, Injection Molded	3.9	ft·lb/in <sup>2</sup>	
73°F, Injection Molded	15	ft·lb/in <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, Injection Molded)	91		ASTM D785
Rockwell Hardness (R-Scale, 73°F)	95		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.125 in, Injection Molded	191	°F	
Deflection Temperature Under Load (66 psi, Unannealed)	191	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.125 in, Injection Molded	168	°F	

**Diamond ASA S170 1795 UVBLK**  
**LyondellBasell Industries - Acrylonitrile Styrene Acrylate**

<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load 264 psi, Unannealed	168	°F	ISO 75-2/A
Vicat Softening Temperature	216	°F	ASTM D1525
Vicat Softening Temperature	216	°F	ISO 306
CLTE - Flow (-22 to 176°F)	4.7E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (-22 to 176°F)	5.6E-5	in/in/°F	ISO 11359-2

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Suggested Shot Size	40 to 70	%
Rear Temperature	446 to 500	°F
Middle Temperature	450 to 509	°F
Front Temperature	455 to 522	°F
Nozzle Temperature	428 to 522	°F
Processing (Melt) Temp	428 to 522	°F
Mold Temperature	104 to 176	°F
Injection Rate	Fast	
Back Pressure	75.0 to 149	psi

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min