# Diamond ASA S190

## Acrylonitrile Styrene Acrylate

#### Network Polymers, Inc.

#### Message:

Diamond ASA S190 is an Acrylonitrile Styrene Acrylate (ASA) product. It can be processed by injection molding and is available in North America. Characteristics include: REACH Compliant ROHS Compliant WEEE Compliant Good Weather Resistance Impact Resistant

General Information				
Features	Good Weather Resistance			
	Ultra High Impact Resistance			
Agency Ratings	EC 1907/2006 (REACH)			
	EU 2002/96/EC (WEEE)			
RoHS Compliance	RoHS Compliant			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.07	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) <sup>1</sup>			ASTM D1238	
200°C/5.0 kg	0.90	g/10 min		
230°C/3.8 kg	2.7	g/10 min		
Molding Shrinkage - Flow	0.40 to 0.80	%	ASTM D955	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale)	88		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>2</sup> (Yield)	35.2	MPa	ASTM D638	
Flexural Modulus - Tangent <sup>3</sup>	1880	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (23°C, 3.18 mm)	450	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load			ASTM D648	
1.8 MPa, Unannealed, 3.18 mm	72.2	°C		
1.8 MPa, Annealed, 3.18 mm	91.1	°C		
Vicat Softening Temperature	100	°C	ASTM D1525 <sup>4</sup>	
Injection	Nominal Value	Unit		
Drying Temperature	80.0 to 85.0	°C		

Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Suggested Shot Size	40 to 70	%
Suggested Max Regrind	30	%
Rear Temperature	230 to 260	°C
Middle Temperature	232 to 265	°C
Front Temperature	235 to 272	°C
Nozzle Temperature	220 to 272	°C
Processing (Melt) Temp	220 to 272	°C
Mold Temperature	40.0 to 80.0	°C
Injection Rate	Fast	
Back Pressure	0.517 to 1.03	MPa
NOTE		
1.	Procedure A	
2.	51 mm/min	
3.	1.3 mm/min	
4.	Loading 1 (10 N)	

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### Recommended distributors for this material

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