

# Prime ABS ST80

Acrylonitrile Styrene Acrylate + ABS

Primex Plastics Corporation

## Message:

Is an alloy of thermoplastic elastomers and weatherable ASA co-extruded over a rigid ABS substrate. Prime ABS ST80 is designed to provide a low gloss look and soft feel, which boasts excellent durability, chemical resistance and UV stability as well as improved sound dampening.

### Applications:

Prime ABS ST80 is particularly suited for use in exterior applications or those interior parts that will be exposed to direct UV light such as dashboards, panels and trim. This includes marine, recreational, automotive, heavy truck, agricultural and construction equipment.

### Processing:

Prime ABS ST80 can be thermoformed on conventional equipment employing techniques typical for thermoforming ABS. Male or female tools may be used. Prime ABS ST80 should be heated only from the substrate side. As long as the substrate reaches a temperature suitable for thermoforming, the soft touch cap layer will also be hot enough to thermoform. The soft touch cap layer should not be heated to a temperature above 325°F. The best appearance and performance of the soft touch cap layer has been obtained when the sheet is thermoformed with the temperature of the cap layer at 300°F. As a general rule, heating rates of 0.5-0.75 sec/mil are the maximum recommended for thermoforming ABS.

### Finishing:

Prime ABS ST80 can be screwed, drilled, routed, punched and die-cut with conventional tooling. Parts made with Prime ABS ST80 may be joined with machine screws, bolts, nuts, rivets, and spring steel fasteners. Threadcutting or thread-forming screws are an economical means of securing separate joints. Formed parts may be joined with Methylene Chloride if maximum impact strength is not required. Press and snap techniques and sonic welding may also be used for the bonding of Prime ABS ST80.

Please contact your Primex Plastics representative for more information on finishing, fabricating, or the thermoforming process.

### Colors, Textures and Capabilities:

Prime ABS ST80 can be color matched to meet your specific requirements. Textures include Calf Grain, HC, Seville, Levant I, and FL/HC.

General Information	
Additive	UV Stabilizer
Features	Bondability
	Durable
	Good Chemical Resistance
	Good UV Resistance
	Good Weather Resistance
	High Heat Resistance
	Low Gloss
	Machinable
	Soft
	Sound Damping
	Ultra High Impact Resistance
Uses	Ultrasonic Weldable
	Agricultural Applications
	Automotive Exterior Parts
	Automotive Instrument Panel
	Construction Applications
	Marine Applications
	Sporting Goods

Appearance	Colors Available		
Forms	Sheet		
Processing Method	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	3.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness <sup>1</sup> (Shore D)	53		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break, 3.18 mm)	24.8	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, 3.18 mm	7.0	%	
Break, 3.18 mm	10	%	
Flexural Modulus <sup>2</sup> (3.18 mm, 50.8 mm Span)	814	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	500	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.18 mm	93.3	°C	
1.8 MPa, Unannealed, 3.18 mm	81.1	°C	
Vicat Softening Temperature	105	°C	ASTM D1525
CLTE - Flow	9.5E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	
Surface Resistivity	1.0E+14	ohms	
Optical	Nominal Value		Test Method
Gardner Gloss (60°)	3		ASTM D523
NOTE			
1.	Initial		
2.	1.3 mm/min		

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