



Prime ABS ST80

Prime ABS ST80 is an alloy of weatherable thermoplastic elastomers co-extruded over a rigid ABS substrate. It was 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.



| Prime ABS ST80 | Very High | High | Avg. |
|---------------------------------|-----------|------|------|
| Impact Strength | * | | |
| Low Temperature Impact Strength | | | * |
| Tensile Strength | | | * |
| Flexural Modulus | | | * |
| Heat Deflection Temperature | | * | |

| Property | Test Method | Value | Unit |
|---------------------------------------|-------------|---------------------|--------------|
| Specific Gravity | D-792 | 1.042 | g/cc |
| Melt Flow | D-1238 | 3.03 | g/10min |
| Gloss, 60° Angle | D-523 | 2.5 | % |
| Elongation @ Yield | D-638 | 7 | % |
| Ultimate Tensile | D-638 | 3590 | psi |
| Ultimate Elongation | D-638 | 10.03 | % |
| Hardness, initial | D-2240 | 53.2 | Shore D |
| Flexural Modulus 0.05 in/min, 2" span | D-790 | 118,000 | psi |
| Notched Izod @ 73°F | D-256 | 9.3 | ft-lb/in |
| Surface Resistivity | | 10 ¹⁴ | Ohms/ square |
| Hardness, Initial | D-2240 | 53 | Shore D |
| HDT @ 66 psi, Un-annealed | D-648 | 200 | °F |
| HDT @ 264 psi, Un-annealed | D-648 | 178 | °F |
| Vicat Softening Point | D-1525 | 221 | °F |
| CLTE | D-696 | 5.3 ¹⁰⁻⁵ | in/in/°F |

Property values above are based on .125" extruded sheet"

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.

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. Thread-cutting 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.

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.

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 315°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 280°F. As a general rule, heating rates of 0.5-0.75 sec/mil are the maximum recommended for thermoforming ABS.

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

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small enough to handle YOUR needs.

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