

# Prime ABS PC/ABS

Polycarbonate + ABS  
Primex Plastics Corporation

## Message:

This product is classified as an amorphous thermoplastic blend of ABS and Polycarbonate. This product is known for high impact and notched impact strength, stiffness, heat resistance, dimensional accuracy, low shrinkage, low warp, and light stability. This product is available in:

Non-reinforced general purpose  
Non-reinforced flame retardant  
Glass fiber reinforced  
Acrylic co-extruded cap

Applications:  
Some ideal application for Prime PC/ABS include the following:  
Engine covers  
Fan shrouds  
Structural parts  
Motorcycle fairings

Processing:  
Forming temp. is 400°F, tool temperature is 150-200°F. The part can be de-molded at 200°F. Sheet should be dried before forming @ 180°F for 2-4 hrs.

Finishing:  
Cutting or machining of this product may be done by sawing, drilling, grinding, sanding, punching and die cutting. High pressure and laser cutting will also work for this product. Prime PC/ABS may be bonded with chemical, mechanical screws and other type of fasteners as well as sonic welding. Please contact your Primex Plastics representative for more information on finishing, fabricating, or the thermoforming process.

Colors, Textures and Capabilities:  
PC/ABS can be color matched to suit your needs. Several textures are available including, H/C, FL/HC, Calf Grain and more. Sheet thickness can range from .090-.400 and in widths of up to 120".

| General Information |                            |      |             |
|---------------------|----------------------------|------|-------------|
| Features            | Amorphous                  |      |             |
|                     | Bondability                |      |             |
|                     | Good Dimensional Stability |      |             |
|                     | High Heat Resistance       |      |             |
|                     | High Impact Resistance     |      |             |
|                     | High Stiffness             |      |             |
|                     | Light Stabilized           |      |             |
|                     | Low Shrinkage              |      |             |
|                     | Low Warpage                |      |             |
|                     | Machinable                 |      |             |
| Uses                | Automotive Under the Hood  |      |             |
|                     | Electrical Housing         |      |             |
|                     | Structural Parts           |      |             |
| Appearance          | Colors Available           |      |             |
| Forms               | Sheet                      |      |             |
| Processing Method   | Thermoforming              |      |             |
| Physical            | Nominal Value              | Unit | Test Method |

|                                   |                      |                   |                    |
|-----------------------------------|----------------------|-------------------|--------------------|
| Specific Gravity                  | 1.22                 | g/cm <sup>3</sup> | ASTM D792          |
| Water Absorption (23°C, 24 hr)    | 0.10                 | %                 | ASTM D570          |
| <b>Mechanical</b>                 | <b>Nominal Value</b> | <b>Unit</b>       | <b>Test Method</b> |
| Tensile Modulus                   | 3300                 | MPa               | ASTM D638          |
| Tensile Strength                  |                      |                   | ASTM D638          |
| Yield                             | 55.8                 | MPa               |                    |
| Break                             | 60.0                 | MPa               |                    |
| Flexural Modulus                  | 2990                 | MPa               | ASTM D790          |
| <b>Impact</b>                     | <b>Nominal Value</b> | <b>Unit</b>       | <b>Test Method</b> |
| Notched Izod Impact (23°C)        | 430                  | J/m               | ASTM D256          |
| <b>Thermal</b>                    | <b>Nominal Value</b> | <b>Unit</b>       | <b>Test Method</b> |
| Deflection Temperature Under Load |                      |                   | ASTM D648          |
| 0.45 MPa, Unannealed              | 138                  | °C                |                    |
| 1.8 MPa, Unannealed               | 126                  | °C                |                    |
| Vicat Softening Temperature       | 118                  | °C                | ASTM D1525         |
| CLTE - Flow                       | 6.6E-5               | cm/cm/°C          | ASTM E831          |
| <b>Additional Information</b>     | <b>Nominal Value</b> | <b>Unit</b>       |                    |
| De-mold Temperature               | 93                   | °C                |                    |
| Drying Temperature <sup>1</sup>   | 82                   | °C                |                    |
| Forming Temperature               | 204                  | °C                |                    |
| Tool Temperature                  | 66 to 93             | °C                |                    |
| <b>NOTE</b>                       |                      |                   |                    |
| 1.                                | 2 to 4 hrs           |                   |                    |

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