

# BS300 - Polycarbonate Sheet

# **Product Datasheet**

# Description

BS300 sheet is an industrial grade sheet material extruded from a blend SABIC Innovative Plastics internally reworked polycarbonate resins along with virgin material.

BS300 sheet was designed for the specific needs of bug shield manufacturers and is also an excellent candidate for non-aesthetic applications requiring impact resistance, good heat resistance, in both flat and thermoformed applications.

# Typical Property Values ◆

| Property                         | Test Method | Unit     | Value                   |
|----------------------------------|-------------|----------|-------------------------|
| Physical                         |             |          |                         |
| Specific Gravity                 | ASTM D792   | -        | 1.20                    |
| Initial Haze                     |             | HU       | <1                      |
| Mechanical                       |             |          |                         |
| Tensile Strength, Yield          | ASTM D638   | psi      | 8,000                   |
| Tensile Modulus                  | ASTM D638   | psi      | 310,000                 |
| Flexural Modulus                 | ASTM D790   | psi      | 310,000                 |
| Thermal                          |             |          |                         |
| Coefficient of Thermal Expansion | ASTM D696   | in/in/°F | 3.75 x 10 <sup>-5</sup> |
| Heat Deflection Temperature      | ASTM D648   | °F       |                         |
| @ 264 psi (average at 0.118")    |             |          | 270                     |
| @ 66 psi (average at 0.118")     |             |          | 280                     |

<sup>◆</sup> These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative

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### **Processing**

BS300 sheet can be used for thermoforming. It offers high, deep draw ratios, equal wall thickness distribution, and it can be formed into complex shapes using standard thermoforming equipment. Sandwich type heating systems give the best results. BS300 sheet has a forming temperature range of 350-400°F. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of .007-.009 in/in taken into account.

### Pre-drying

It is important to ensure that BS300 sheet is free of moisture prior to thermoforming. A hot air circulating oven set at 250°F is recommended. Pre-drying times vary from 3-24 hours, depending on sheet thickness.

### Assembling

Parts made from BS300 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Innovative Plastics, for advice on specific applications

Product code: BS300

Textures/Masking: Polished / Polished, Cling Stick 28 masking TOP + BOTTOM

Colors Standard: 51161 (Dark bronze)

Orientation tape: Top side

### **Painting**

BS300 sheet is well-suited for use with a wide variety of modern decoration techniques. A list of approved paint systems and suppliers is available upon request.

#### Chemical Resistance

BS300 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. Specific (application related) testing is always advised, especially in applications where the BS300 sheet will come into contact with aggressive chemicals.



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