

# CHEMCAST<sup>®</sup>

The all purpose cell-cast acrylic sheet



**SB**  
Solar Block

**CHEMCAST SB** is the new generation of cell cast acrylic sheet specially designed to filter 99% UV radiation.



**CHEMCAST SB** can be used in every place where you need to protect yourself or your valuable articles against the harmful solar UV radiation. Windshields, windows and sky domes are some of the applications recommended.



**CHEMCAST SB** protects special adhesives and joints used on boat and yacht windows.



## Advantages and Benefits



Lighter weight than glass.



Easy to fabricate.



Full protection against UV solar radiation.

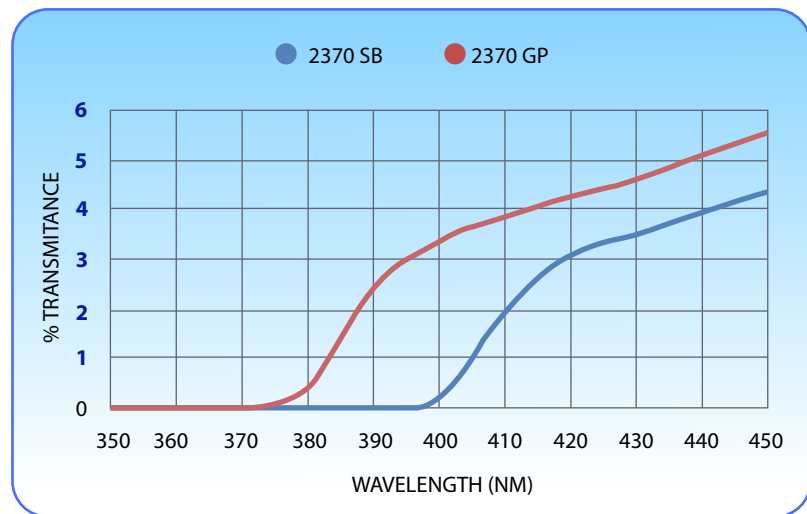
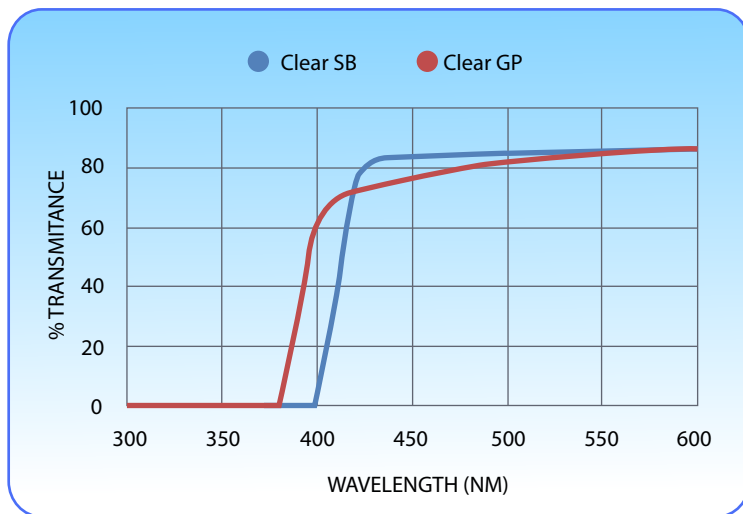
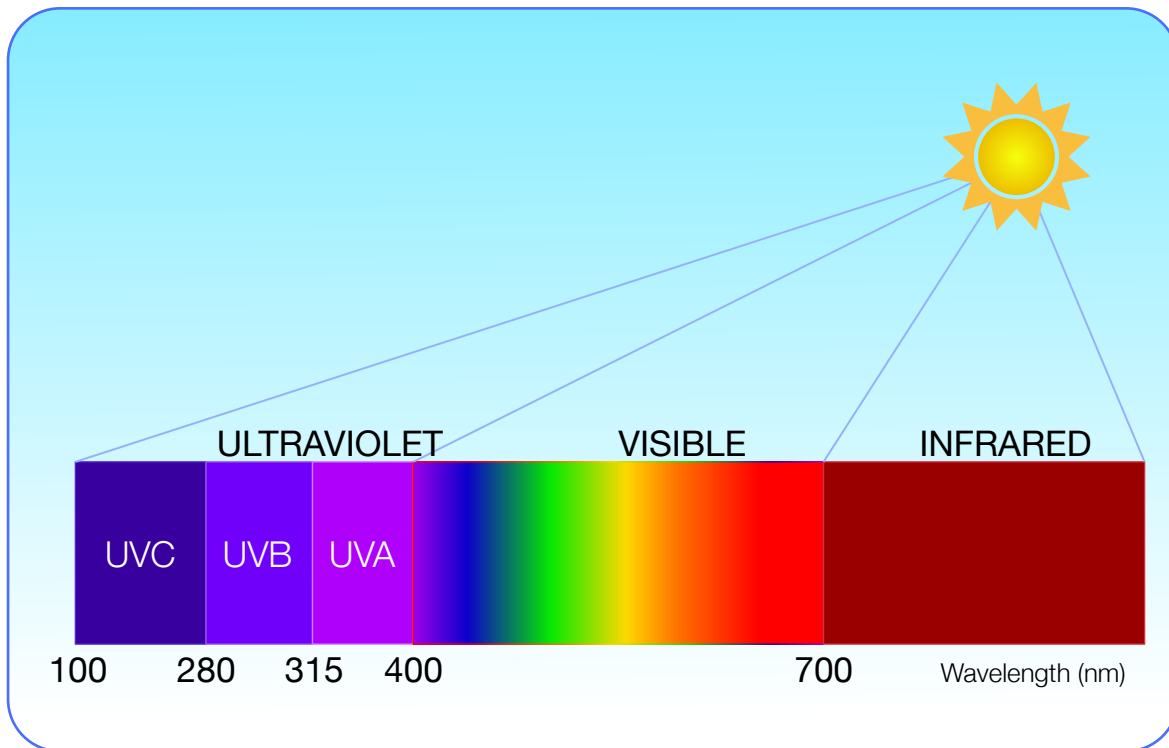


High clarity in a wide range of colors.



Available in a wide range of sizes.

## Solar spectral radiation components



Chemcast Solar Block filters out up to 99% of UV radiation without affecting color performance through visible spectrum.



## Product Availability

| Product     | Colors                                        | thickness        | Sizes                                          |
|-------------|-----------------------------------------------|------------------|------------------------------------------------|
| Chemcast SB | 2370<br>2540<br>2404<br>2538<br>2094<br>CLEAR | 0.354"<br>0.472" | 48"x 96"<br>51"x 100"<br>60"x 96"<br>72" x 96" |

## PHYSICAL AND MECHANICAL PROPERTIES

| PROPERTY                                            | TYPICAL VALUE (1) | TEST METHOD |
|-----------------------------------------------------|-------------------|-------------|
| <b>OPTICAL</b>                                      |                   |             |
| Specific Gravity                                    | 1.18              | ASTMD 792   |
| Optical Refractive Index                            | 1.49              | ASTMD 542   |
| Haze (%)                                            | 2                 | ASTMD 542   |
| Light Transmission (%)<br>0.220" - 0.472" ( Clear)  | 90                | ASTM 1003   |
| Light Transmission UV 400 nm (%)<br>clear 0.236"    | 1% >              | ASTM 1003   |
| <b>MECHANICAL</b>                                   |                   |             |
| Tensile Strenght (psi)                              | 9600              | ASTMD 638   |
| Elongation at Rupture (%)                           | 4.5               | ASTMD 638   |
| Modulus of Elasticity (psi)                         | 425,000           | ASTMD 798   |
| Impact Strenght (ft lb/in)                          | 0.4 - 0.5         | ASTM 256    |
| Flexural Strenght (psi)                             | 15000 – 16000     | ASTMD 798   |
| Rockwell Hardness                                   | M (90 - 100)      | ASTM 785    |
| Barcol Hardness                                     | 50                | ASTM 2583   |
| <b>THERMAL</b>                                      |                   |             |
| FormingTemperature (°C)                             | 140 – 180         |             |
| (°F)                                                | 284 – 356         |             |
| DeflectionTemperature                               |                   |             |
| Under Load (264 psi) ( °C)                          | 91                | ASTMD 648   |
| ( °F)                                               | 196               | ASTMD 648   |
| Maximum recommended<br>continouos service temp (°C) | 80                | ASTM 1525   |
| (°F)                                                | 176               | ASTM 152    |
| <b>MISCELLANEOUS</b>                                |                   |             |
| Water absorption<br>(24 hrs. -23°C -73 °F) (%)      | 0.30%             | ASTM 570    |

All values referred to 6.0 mm (0.236") acrylic sheet. These values are typical and should not be taken as specifications.

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 **UNIGEL**