

# CHEMCAST<sup>®</sup>

The all purpose cell-cast acrylic sheet



**HR**

HEAT REFLECTIVE

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**Chemcast HR** is the acrylic sheet that reflects up to 50% of the infrared radiation from the sun and at the same time it blocks up to 99% of UV radiation.



**Chemcast HR** allows you to save up to 25% of energy (BTU's) in air conditioning in boats, yachts or catamarans (40% of glazing).



Feel more comfortable under **Chemcast HR** protection even in domes and acrylic roofs.



## Advantages and Benefits



Lighter weight than glass.



Easy to fabricate.



Full protection against UV solar radiation.



High infrared radiation reflectivity.

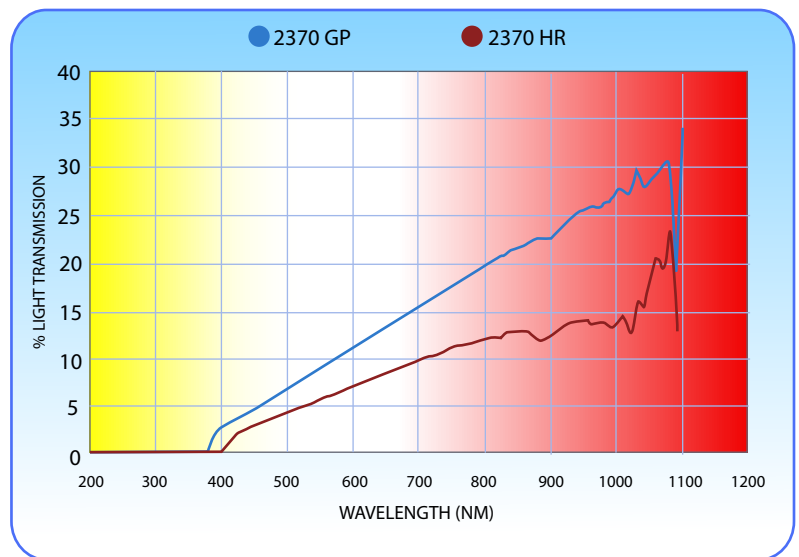
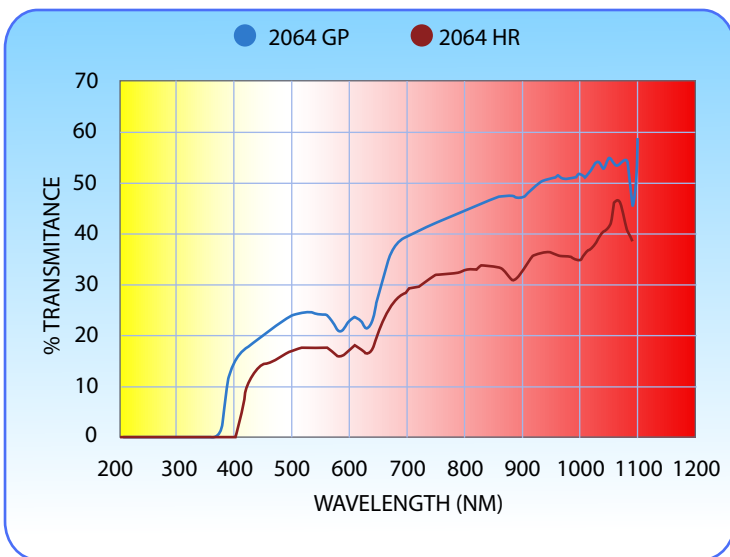
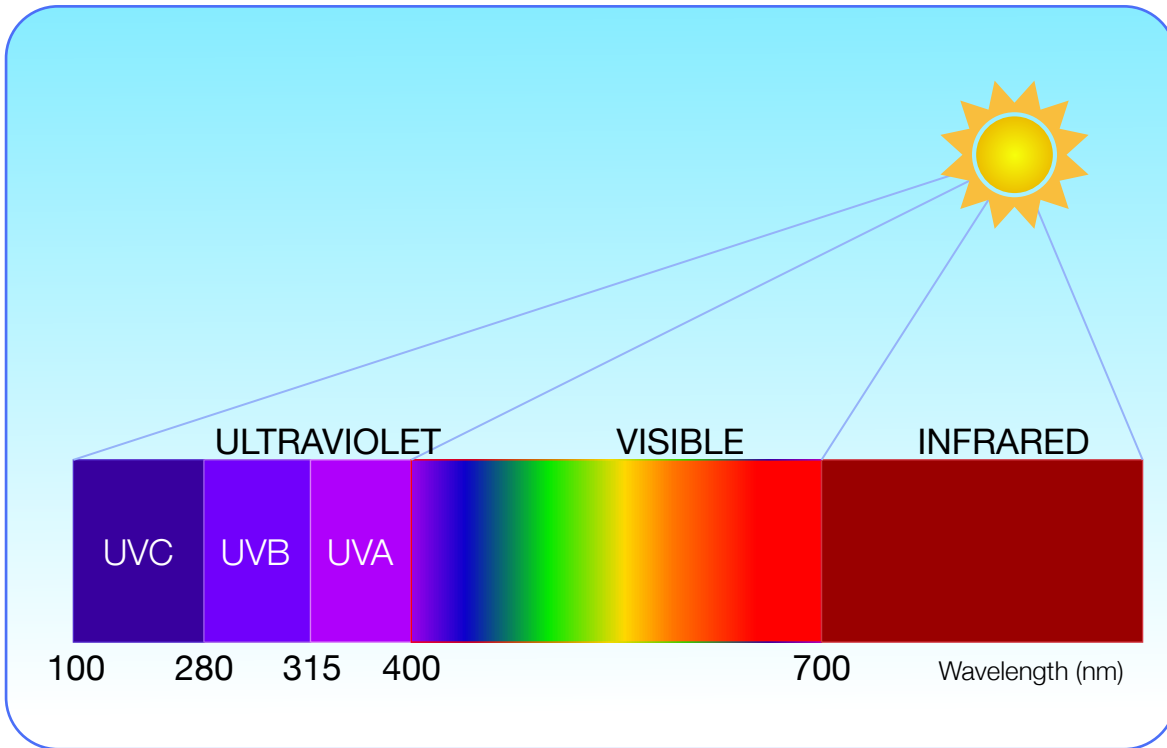


High clarity in a wide range of colors.



Available in a wide range of sizes.

# Solar spectral radiation components



Chemcast Heat Reflective blocks 99% UV radiation and reflects at least 50% infrared radiation



### Product Availability

Product	Colors	thickness	Sizes
Chemcast HR	2370	0.354"	48" x 96"
	2540	0.472"	51" x 100"
	2404		60" x 96"
	2538		72" x 96"
	2094		
	CLEAR		

## 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 (%) 0.220" - 0.472" ( Clear)	70	ASTM 1003
Light Transmission UV 400 nm (%) clear 0.236"	1% <	ASTM 1003
Light Transmission IR 900 nm (%) clear 0.236"	50% <	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 continouos service temp (°C)	80	ASTM 1525
(°F)	176	ASTM 152
<b>MISCELLANEOUS</b>		
Water absorption (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**