

RENCRAFT®

Specialty Polycarbonate
Product Datasheet

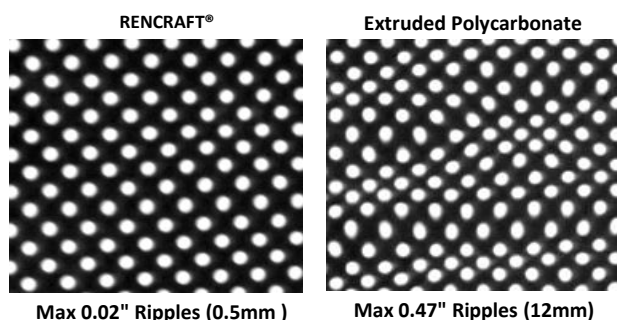


About RENCRAFT®

RENCRAFT® polycarbonate from RENIAS CO., LTD. is a stable, durable polycarbonate product suitable for a wide variety of applications where optical clarity and durability are required. RENCRAFT® is manufactured through a special injection-compression method that practically eliminates ripples and visual distortion from the sheet. Combined with RENCRAFT®'s standard abrasion resistant hard-coat and weather resistant material, RENCRAFT® is superbly suited to outdoor glazing for construction, transportation, or industrial uses.

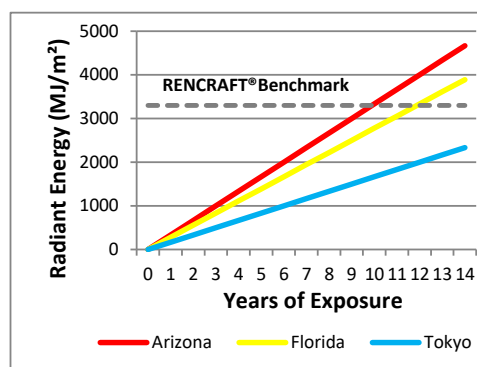
RENCRAFT® Clarity Up Close

With RENCRAFT® you don't need to worry about rippling. The photos below are test results from the JIS R3212 test. Light is shown through a grid of 0.314" (8mm) dots placed in front of a 0.590" (15mm) sheet of polycarbonate and then cast onto a wall. Then, the variance between original and projected dot size is measured.



Superior Weather Protection

RENCRAFT® polycarbonate products scored 5000 hours on the Super Xenon weathering test (102 minutes radiation/18 minutes radiation+rain cycles). RENCRAFT® can last 11-20 years exposed depending on locale.



Industry-Leading Abrasion Resistance

RENCRAFT® polycarbonate features a unique hard coat that has a significantly harder surface than our competitors. Our hard coat is close to 50 times more resistant to abrasion than untreated polycarbonate and only slightly more susceptible to abrasion than glass.

Combined with our optional super-hard coat for industry leading abrasion resistance performance, our super-hard coat is unmatched by our competitors and is virtually identical in abrasion resistance to glass.

Delta Haze, Taber Test (1000 Rotations @ 500g)	
RENCRAFT®	3.1
RENCRAFT® + Super Hard Coat	1.3
Glass	1.2
Competitor 1	4.9
Competitor 2	8.2
Non-coating PC	52.0

Typical Property Values

Physical	Test	Unit	RENCRAFT®
Specific Gravity	ASTM D792	-	1.2
Initial Haze	ASTM D1003	%	0.26
Light Transmission (Clear, 0.125")	-	%	92.5

Mechanical	Test	Unit	RENCRAFT®
Poisson's Ratio	-	-	0.38
Tensile Strength, Ultimate	ASTM D638	psi	9,600
Tensile Modulus	ASTM D638	psi	342,000
Elongation	ASTM D638	%	105
Flexural Strength	ASTM D790	psi	16,500
Flexural Modulus	ASTM D790	psi	333,500
Compressive Strength	ASTM D695	psi	12,500
Izod Impact Strength, Notched @ 0.125"	ASTM D256	ft-lb/in	15

Thermal	Test	Unit	RENCRAFT®
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.6×10^{-5}
Heat Deflection Temperature @66 psi	ASTM D648	°F	280
Burning Rate	SAE J369	in	< 1

Chemical Reactivity	RENCRAFT®
Acetone	No Change
Butanone	No Change
Hydraulic Fluid	No Change
Methanol	No Change
Ethylene Glycol	No Change

RENIAS CO., LTD.

RENIAS CO., LTD is Japan's largest one-stop-shop for polycarbonate windows, combining molding, fritting, glazing, and machining operations under one roof. We have developed a number of patent-pending technologies that give us world-class anti-abrasive and anti-weathering properties that can meet abrasion and ballistic regulations in a number of regions including Japan, North America, Europe, and Asia Pacific.

Since our establishment in 1976, we've worked closely with our partners in the construction, automotive, transportation, and other industries to meet the requirements and demands of our customers. We are currently the No. 1 supplier of polycarbonate roofs for Japan's construction equipment industry and are actively working to expand our profile abroad.

*Data is provided for reference. Values are typical values of the states product but should not be interpreted as a guarantee. Please contact RENIAS CO., LTD for more information.

Exclusively Distributed in Australia and New Zealand by:

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