



CO-EX
CORPORATION

Rooflite[®]

POLYCARBONATE
CORRUGATED
SHEET



Rooflite

CORRUGATED

Rooflite® polycarbonate corrugated sheet provides design professionals, greenhouse growers, and do-it-yourselfers with an easily fabricated and installed building product. Unique physical, mechanical, thermal and optical properties combine to make Rooflite® flexible and strong, yet light in weight.

• EXTENSIVE PRODUCT RANGE

The Arc Wave Profile is designed for maximum light transmission making it perfect for agricultural applications and more.

The Greca Profile is appropriate for agricultural, industrial & do-it-yourself applications.

The Sine Wave Profile is a superior replacement for fiberglass in all applications and for do-it-yourselfers.

Britelite® glass modified Arc Wave, Greca and Sine Wave is perfect for increased light diffusion and when a stronger, more durable, surface is desirable.

Condensation Control is ideal for damp environments like greenhouses or pool enclosures.

Available Colors include clear, opal, bronze and custom colors on request.

• APPLICATIONS

Rooflite® corrugated polycarbonate sheet is perfect for applications requiring high light transmission in a lightweight yet strong product. The special corrugated profiles (when compared with flat glazing materials), provide greatly improved strength and rigidity while maintaining flexibility. Rooflite® sheet features high impact resistance, is self extinguishing and is U.V. protected. It is well suited for a wide temperature range and provides great economy, vandal resistance and design flexibility not found in other thermoplastic products. Consider using Rooflite® corrugated sheet in your project.

AGRICULTURAL: Rooflite® corrugated panels are recommended for greenhouse coverings, side & end walls and interior partitions where high light transmission,

high P.A.R. light, and excellent U.V. protection is required. Our optional Britelite® glass modified feature combines the best qualities of polycarbonate with glass to increase light diffusion and create a more abrasion resistant surface. Ask your distributor for details.

DESIGN PROFESSIONALS: industrial sloped and vertical glazing, sun roofs, conservatories, walkways, canopies, pool enclosures, shelters and more.

HOME IMPROVEMENT (do-it-yourself): Hobby greenhouses, sheds, patio covers, gazebos, carport covers, awnings and much more.

• LIGHTWEIGHT

At just 1/8 the weight of glass, Rooflite® corrugated sheet does not require the extensive structural support that a heavier glass wall or skylight needs. Lightweight sheet is easy to handle and install.

• VIRTUALLY UNBREAKABLE

Able to withstand extreme abuse, the strong Rooflite® corrugated sheet has an impact resistance 20 times stronger than fiberglass and over 120 times stronger than glass. Resisting hail, wind-borne objects and vandalism, Rooflite® can withstand over 235 pounds per inch of impact within a temperature range of -40°F to 240°F as measured by ASTM D 3029.

• EASY TO INSTALL

Rooflite® corrugated sheet has been specifically designed for simple and rapid installation. It easily adapts to any wall or roof with a bending radius over 13'.

• LOW FLAMMABILITY

Rooflite® corrugated sheet meets the requirements of approved light transmitting plastic under the Uniform Building Code as recognized by ICBO, BOCA and SBCC.

• LIGHT TRANSMISSION

Clear Rooflite® corrugated sheet transmits visible light – up to 90% (as measured by ASTM standards and demonstrated in the chart at left) to your crops, house plants or enclosure.

• REDUCED U.V. TRANSMISSION

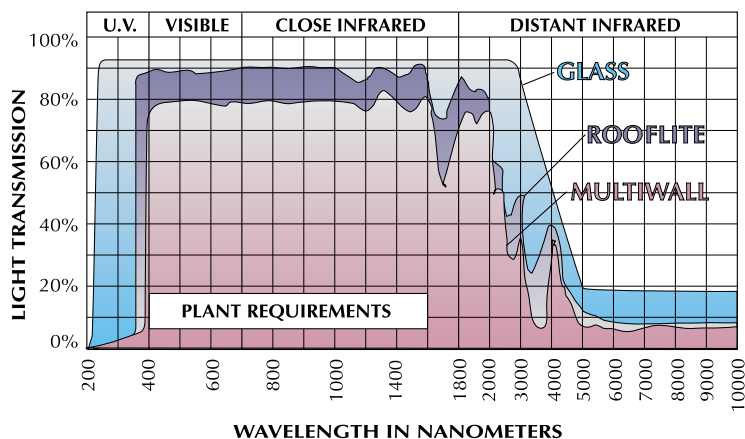
Rooflite® corrugated is essentially opaque to ultraviolet light at wavelengths below 385 nanometers. This U.V. protection will help to prevent fading and discoloration of interior decor as well as protect tender seedlings and greenhouse crops.

Rooflite® corrugated sheet is manufactured using state of the art co-extrusion technology combining color, U.V. resistance and durability. Remaining clear for many years, Rooflite® is backed by a ten year warranty against yellowing.

• BRITELITE®

By introducing glass into the polycarbonate material, CO-EX has developed a product which gives you the best features of both. When incorporated into Rooflite® sheet, Britelite offers high abrasion resistance as well as greatly increased light diffusion.

LIGHT TRANSMISSION SPECTRUM OF THE CLEAR SHEET

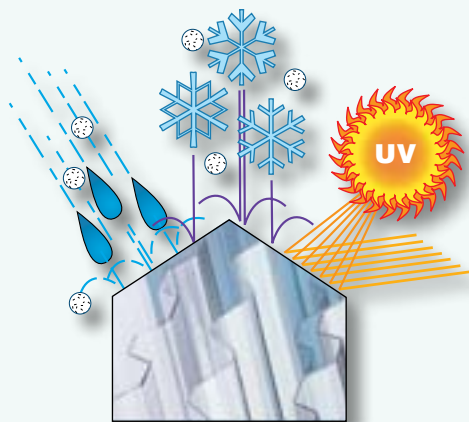


GRECA, ARC & SINE WAVE STYLES

TECHNICAL DATA

| STRUCTURE TYPE | | ARC WAVE | GRECA | SINE WAVE* |
|---|------------|-----------------------|-----------------------|-----------------------|
| Overall Width | | 50" | 50" | 50" |
| Overall Length | | up to 39' | up to 39' | up to 39' |
| Net Coverage | | 48" | 48" | 48" |
| Pitch | | 3" | 3" | 3" |
| Depth | | .71" | .71" | .71" |
| Thickness | | .031" | .031" | .031" |
| Light Transmission ASTM-D1003 (%) | Clear | 90% | 90% | 90% |
| | Bronze | 37% | 37% | 37% |
| | Opal | 52% | 52% | 52% |
| | Britelite® | 88% | 88% | 88% |
| Coefficient of Thermal Expansion (in/in/°F) | | 3.75×10^{-5} | 3.75×10^{-5} | 3.75×10^{-5} |
| U.V. Transmission | | 0 | 0 | 0 |
| Minimum Bending Radius (Ft./1 Inch) | | 13' | 13' | 13' |
| U Factor (BTU/hr.- ft.²F) | | 1.20 | 1.20 | 1.20 |

* Sine Wave available by special order only



• CONDENSATION CONTROL

Factory applied condensation control is provided with Rooflite® panels. Reducing surface tension, the condensation control allows water to spread into a thin sheet rather than form into droplets.

This condensation control helps create an optimal growing environment in the greenhouse by minimizing bacteria growth. In pool enclosures or other damp environments, condensation control will help resist mildew and fungus growth. It is ideal for all applications from greenhouses to backyard patio covers.

• SOLAR ENERGY

During early morning and late afternoon hours, standard flat glazing reflects solar light and energy. The profiles of Rooflite® are engineered to capture angled light for increased solar gain during colder winter months to save energy costs in greenhouses and other structures.

• CHEMICAL STABILITY

Unharmful by most substances, it is necessary to avoid contact with adhesives, paints or solvents incompatible with polycarbonate.

Avoid benzene, gasoline, acetone and carbon

LOAD INFORMATION

Recommended Purlin Distance (25 psf load)

| | ROOF | WALL |
|----------------------------------|------|------|
| Arc Wave, Greca, Sine Wave | 36" | 48" |

MECHANICAL PROPERTIES

| | Per ASTM | lb./in² |
|-----------------------------------|------------|---------|
| Tensile strength at yield | D638 | 9,200 |
| Tensile strength at break | D638 | 9,900 |
| Tensile Modulus | D638 | 330,000 |
| Flexural stress at 5% strain..... | D790 | 12,400 |
| Flexural modulus..... | D790 | 330,000 |
| Compressive stress at yield | D695 | 12,500 |

tetrachloride among others and use recommended closure materials, avoid P.V.C. shade curtains and gasketing. For specific product information, call CO-EX for compatibility recommendations.

• TEMPERATURE PERFORMANCE

Rooflite® is designed for normal use in temperatures from -40°F to 240°F making it appropriate for use in all climates.

• **WARRANTY** – Rooflite® is backed by a 10 year warranty on light transmission.

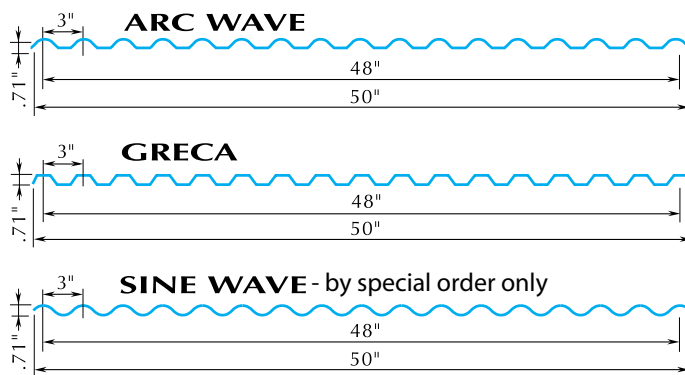
Rooflite®

LIGHTWEIGHT & STRONG . . . WITH UV PROTECTION!



Whether you are considering a greenhouse or a carport, you can be assured that whatever you put under a Rooflite® corrugated sheet will be protected . . .

- **Rooflite® protects your investment.**
Our polycarbonate is 20 times stronger than fiberglass and over 120 times stronger than glass. Rooflite® has excellent resistance to damage from hail and wind-borne debris or vandalism.
- **Rooflite® brightens interior spaces.**
With up to 90% light transmission, Rooflite® clearly provides a luminous interior and an optimal growing environment.
- **Rooflite® provides U.V. protection.**
Ultraviolet light will not penetrate through shed to fade and discolor interiors or burn tender plants.
- **Rooflite® is lightweight.**
It is easy to carry, does not require extensive structural support, and saves in shipping costs when compared with other glazing materials.
- **Rooflite® adapts to any installation.**
It works equally well as a roofing material or wall component and easily adapts to curved surfaces.
- **Rooflite® condensation control resists mildew and bacteria growth.**



THE PERFECT CHOICE

You can be assured that from transport to installation, Rooflite® corrugated sheet will maintain its durability. Even when exposed to elevated temperatures over a long period of time, it will maintain its structural integrity.

It won't crack or split when cut or drilled and can be easily fabricated using standard tools. It's ideal for quick, professional installation and works equally well for any do-it-yourself building project.

CO-EX Corporation manufactures a full line of Rooflite® Polycarbonate Corrugated sheet and Macrolux® Twin, Triple and Multiwall Polycarbonate Structured sheet.

CALL TODAY
FOR MORE INFORMATION
(800) 888-5364

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