



**Guidelines for installing, handling, cleaning, and chemical resistance of CoverLite corrugated polycarbonate panels**

## **INSTALLATION:**

### **CUTTING**

CoverLite polycarbonate sheets can easily be cut with standard shears or fine-toothed band saws or circular saws with fine tooth blades at least 10 teeth per inch. While cutting, the sheets should be clamped to avoid vibration. When making pointed turns in direction of the cut, drill a hole where the two cuts are to intersect, and then cut through the hole. Clean the powder or debris off of sheet prior to installation.

### **DRILLING & SCREWING**

Temperature change causes expansion and contraction and any resistance can cause sheet distortion, therefore allowance must be made for thermal movement. Pre-drill fixing holes to allow for expansion and contraction by at least 5/64" larger than screw. Avoid screwing directly on panels. It is recommended to utilize pressing bars to fix the screws and panels. Fixing with at least 1/2" neoprene bonded washers is also required. Drill holes through the crest of the corrugation for roofing and through the valley for walls. The sheets can be drilled by using any kind of metal drills. The sheets should be drilled at a low speed, while supporting the sheet underneath to avoid vibration.

### **POSITIONING & SHEET ORIENTATION**

Make sure the sides printed with marks face upward or toward the sun and install panels with edges pointing down – not up. Panels should be installed with exterior lap edges facing away from prevailing winds. Install CoverLite corrugated sheets with the ribs running vertically. An overlap of at least one corrugation is recommended. The upper sheet in the overlap should be in the up-wind direction. If overlap is needed in sheet length, at least 6" overlap is also recommended.

### **WEATHER-SEAL**

Do not use materials incompatible with polycarbonate which are listed later in guide. While using seals and fixing, tighten only enough to prevent movement. Over-tightening of the screws may cause material distortion or undue stress with possible failure resulting. If silicone is needed, always use a silicone that is compatible with polycarbonate.

### **BENDING OR BURYING SHEET**

The flexibility of the sheet is sufficient to allow longitudinal curves, but flexing or installing a sheet to the point of buckling can cause rapid deterioration in highly stressed areas. For added strength and rodent control, sheets at ground level may be buried 4" to 6" into the ground.

### **PAINTING**

It is not recommended to paint CoverLite corrugated sheets. If paint is necessary, the paints used should be compatible with polycarbonate. Polyurethane based paints are usually recommended. Solvent-based paints should not be used. Paints should never be removed with paint thinner as it is highly incompatible with polycarbonate.

### **FASTENING**

Corrugated sheets should be fastened at every second or third corrugation. Sheet edges at ridge and gutter should always be fastened at every second corrugation.

### **WALL FASTENING**

The fasteners should be installed on the valley of the corrugation. The panels must be attached to the horizontal members (purlins) for correct support. Purlins should be spaced no more than 4' apart.

### **ROOF FASTENING**

Rafter spacing should coincide with sheet overlaps. A minimum roof pitch of 3:12 is recommended in order to allow wind and rain to clean the sheets naturally.



The fasteners should be installed at the top of the corrugation. The panels must be attached to the purlins for correct support. Purlins should be spaced no more than 4' apart.

### **RIDGE/GUTTER**

Sheet edges at ridge and gutter should always be fastened at each second corrugation. Do not apply sealants between overlapping panels. Sealants are not required. Silicone between sheets over laps could damage the sheet and would only result in unsightly dirt streaks.

### **LAP FASTENERS**

Install lap fasteners while panels are still on the ground. After marking off lap fastener locations, press pointed tabs through one panel from the bottom. Then bend tabs down. Overlapping panel edges are fastened together after placement by means of self-drilling, self-tapping screw, which are screwed through both panels and into the lap fastener on the underside of the bottom panel. Two panels can be fastened together on the ground for fast installation.

### **HANDLING & STORAGE:**

#### **HANDLING**

CoverLite corrugated sheet, being a tough product, requires little special handling. It is recommended, however, that the sheets must be protected from abrasion while handling.

#### **TRANSPORTATION & STORAGE**

While in transportation and storage, never put the panels in direct contact with cements and paints, both of which are extremely incompatible with polycarbonate. Always utilize thick wooden boards to isolate the panels from contact with cements and paints while transporting or storing. The sheets must be stored horizontally on flat surface and kept away from direct sunlight. Original crating is not sufficient to protect panels from solar heat gain damage. Do not stack sheets covered or uncovered in direct sunlight. Stacking may cause the sheets to heat up and distort. Always keep stacked sheets in a well-protected and shaded area during storage and installation. The longest sheet should be at bottom of stack. Prevent moisture from getting between stored sheets, as this may cause whitening. Allow for ventilation particularly at the highest point to minimize heat build-up and provide air circulation. Under single skin roofs of any sort and especially in cold temperature, condensation is generally unavoidable. Good ventilation will always help minimize condensation.

#### **CLEANING**

Polycarbonate resin and panels are not resistant to abrasion. Please clean polycarbonate panels in accordance with guidelines provided to maintain polycarbonate sheets for long term use.

- Gently wash sheets with a clean sponge or soft cloth, using lukewarm soapy water or mild detergent.
- Rinse sheets with lukewarm water.
- Dry sheets with soft cloth to prevent water spotting
- Do not scrub or use brushes, brooms, or any cleaning tool that may easily cause abrasion.
- Never use corrosive chemical detergents.
- To remove adhesive agents or spots left by masking films or logos, utilize kerosene or alcohol solvents with soft cloth.
- Do not use gasoline.
- Wash sheets again after applying the above mentioned cleaning materials.

#### **CHEMICAL RESISTANCE**

CoverLite polycarbonate sheet is generally unaffected by acids, alcohol, glycols, mineral oil, animal and vegetable fats, kerosene and non-abrasive cleaners. CoverLite polycarbonate sheet is affected by benzene, petrol, ketones, acetone, phenols, chlorinated and aromatic hydrocarbons, petroleum-based paints, abrasive cleaners and solvents.



### **INCOMPATIBLE MATERIALS**

Acetaldehyde, acetate acid, acetone, acrylonitrile, ammonia, hydrogen fluoride, hydrogen sulphide, benzene, benzoate acid, benzoate alcohol, calcium nitrate bormoxynil, phenol, carbon disulfide, carbon tetrachloride, 5% potassium hydroxide. Solutions, 5% sodium hydroxide solutions or caustic soda, chlorobenzilate, chloroform, m-cresol, cyclohexanone, cyclohexenc, dimethy formamide, dioxathe, ethylamine, ethyl ether, 2-ethylene, hlorohydrin, gasoline, methyl methacrylate, nitrobenzene, benzoate ethylalcohol, phenol, phosphorus trichloride, prionic acid, styrene, 1.1,2,2,-tetrachloro ethane, tetrahydrofuran, tolene, 10% trichloroacetic acid, xylene, ammonia hydroxide, ketone, methyl ethyl ketone, dichloromethane, poly vinyl chloride, potassium hydrxide, sodium hydroxide and nitric acid, etc.