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GUIDELINES FOR INSTALLING, HANDLING & CLEANING OF COVERLITE CORRUGATED POLYCARBONATE PANELS

INSTALLATION:

CUTTING

Coverlite PC sheets can be easily cut with standard shears or fine-toothed band saws or circular saws with fine tooth blades with 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 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 enlarged fixing holes to allow for expansion and contraction. 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 to 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. 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 neutral silicone.

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 down (flat) section of the corrugation. The panels must be attached to the horizontal members (girts) for correct support. Girts should be spaced no more than 4' apart.

ROOF FASTENING

Rafter spacing should coincide with sheet overlaps. A minimum roof pitch of 5 degrees is recommended in order to allow wind and rain to clean the sheets naturally. Below 5% pitch may also result in the roof leaking (5% pitch = 88mm rise per lineal meter, therefore a roof which is 3 meters long require a minimum 264mm rise). The fasteners should be installed at the top 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.

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. Silicon 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, as both of which are extremely incompatible with PC resins. 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 material not resistant to abrasion. Please clean PC panels in accordance with guidelines of cleaning provided by our distributors. To maintain well functioning of PC sheets for long term uses, the following points should be observed:

- ⊙ Gently wash sheets with a clean sponge or soft cloth, using lukewarm neutral soapy water or mild detergent.
- ⊙ Rinse sheets with lukewarm neutral water.
- ⊙ Dry sheets with soft cloth to prevent water spotting.
- ⊙ Do not scrub or use brushes, brooms, rubbers 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 PC sheet is generally unaffected by acids, alcohol, glycols, mineral oil, animal and vegetable fats, kerosene and non-abrasive cleaners. Coverlite PC 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, boronoxynil, phenol, carbon disulfide, carbon tetrachloride, 5% potassium hydroxide. Solutions, 5% sodium hydroxide solutions or caustic soda, chlorobenzilate, chloroform, m-cresol, cyclohexanone, cyclohexene, dimethyl formamide, dioxane, ethylamine, ethyl ether, 2-ethylene, chlorohydrin, gasoline, methyl methacrylate, nitrobenzene, benzoate ethylalcohol, phenol, phosphorus trichloride, prionic acid, styrene, 1,1,2,2-tetrachloro ethane, tetrahydrofuran, toluene, 10% trichloroacetic acid, xylene, ammonia hydroxide, ketone, methyl ethyl ketone, dichloromethane, poly vinyl chloride, potassium hydroxide, sodium hydroxide and nitric acid, etc.