

## CoverLite® MR9" and MR12" Corrugated Polycarbonate Sheet Warranty

Ten (10) Year Warranty as specified below for CoverLite® MR9" and MR12" Corrugated Polycarbonate Sheets purchased as of the date of delivery/shipment:

- 1) Yellowing of sheets' surface:** In accordance with standard test ASTM D1925, the yellowing index should remain at or below 3 within 3 years, and remain at or below 10 within 10 years.
- 2) Penetrability of Ultraviolet Ray in wave length 300nm should be less than 2.4%.**
- 3) Light Transmittance:** Based on standard test ASTM D1003, sheets should have 90% of the original percentage of light transmittance at the end of the ten (10) year warranty period.
- 4) Sheets shall not break as a result of hailstones measuring up to 25mm in diameter, and attaining up to 20 meter/seconds in velocity.**

Should the polycarbonate sheets not reach the warranty scope specified above (providing that storing, installation, handling and cleaning of the sheets was complied per guidelines), you must present this warranty and invoice as well as samples of the defective products for replacement of new sheets.

**Notes:**

- 1) The warranty specified above does not apply to scratches, abrasion and/or any damage caused by contact with incompatible materials or breakage due to natural disasters.**
- 2) The warranty specified above does not apply to applications in an environment that may damage the principle raw materials of the sheets – polycarbonate resins – as well as contacts within compatible adhesives, such as cements.**
- 3) The warranty specified above does not apply to losses or expenditure resulting from improper installation and/or cleaning.**
- 4) The warranty specified above applies to CoverLite® Corrugated Polycarbonate Sheets as the only new sheets for replacement.** Costs associated with removal and/or installation is not included in the warranty as well as packaging, shipping, taxes, or any other direct or indirect losses.
- 5) Breakage caused by objects other than hail is excluded from this warranty.** Impact failures or breakage caused by other means, intentional or unintentional, is not covered.

**Quality Standards of CoverLite® MR 9" and MR12" Corrugated Polycarbonate Sheet**

Property	Test Method	Average Index
Specific Gravity	ASTM D792	1.20 +/-5%
Tensile Strength	CNS11335	551 kgf/cm2

Elongation	CNS11335	50%
Compressive Strength	ASTM D695	830 kgf/cm <sup>2</sup>
Modulus of Elasticity	ASTM D638	345000PSI +/-10%
Flexural Strength:	ASTM D790	950 kgf/cm <sup>2</sup>
Yellowing Index (only UV-Grade apply)	(After exposure to sun light for 3 years)	Below 3.0
Light Transmittance	wave length 500nm (UV/VIS)	85%
UV-Ray Penetrability (only UV-Grade apply)	wave length 300nm(UV/VIS)	2.4%
Impact Strength	CNS11335 (1 kg. iron ball falls from 120cm height)	Unbreakable
Inflammability	UL 94V2 (contact with flame for 10 seconds and move away)	Self-extinguishing
Deflection Temperature	ASTM D648, 18.6 kgf/cm <sup>2</sup>	135 C (The highest temp. is about 120 C in continuous uses)
Brittle Temperature	ASTM D764	(The lowest temp. is about -30 C in continuous uses)
Linear thermal expansion Coefficient	-----	Pertain to smaller coefficient of synthetic resin

### **Incompatible Materials with the CoverLite® MR 9" and MR12" Corrugated Polycarbonate Sheet**

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, 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, polyvinyl chloride, potassium hydroxide, sodium hydroxide and nitric acid, etc.

**Note:** This is only a partial list and should be used only as a general guideline. If the material is not listed above, check the compatibility of polycarbonate with the manufacturer before use.

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