

Unitrex Polycarbonate

Commercial/Industrial Siding and Roofing Panels



“The Not Very Heavy, But Very Heavy-Duty Panel”

Unitrex Polycarbonate:

Unitrex Polycarbonate is the heavy-duty corrugated panel — ideal for new or replacement siding, and roofing in industrial, commercial, and residential buildings subject to frequent damage from weather, polluted atmosphere, and high impact forces. Unitrex Polycarbonate panels provide **long-term** durability against denting, cracking, or peeling of siding and roofing panels.

To assure light transmission and color stability characteristics, Unitrex Polycarbonate panels are **completely UV resistant**, offering a substantial advantage over other siding and roofing panels. Unitrex Polycarbonate panels also have a **non-combustible flame spread rating of 6** — considerably less than other non-metallic panels.



Applications:

- Arched roofs
- Architectural elements and details
- Agricultural buildings
- Barns
- Compressor houses
- Elevator enclosures
- Garages
- Industrial buildings
- Lean-to's
- Manufacturing facilities
- Salt storage buildings
- Sanitation room and truck liners
- Sheds
- Skylights, awnings, and translucent buildings
- Storage buildings and mini-storage buildings
- Warehouses

Features:

- Wide range of resistance to corrosion.
- Low non-combustible flame spread rating of 6.
- UV resistant: will not yellow, turn brittle, or discolor, and blocks 100% of harmful UV radiation.
- Solar control - 20% light transmitting without heat buildup, reducing heating and cooling costs.
- Solid polycarbonate: no peeling, denting, or loss of structural integrity.
- Operating temperatures (-50°F to 260°F).
- Easy to handle and install.
- Cost effective.
- Virtually unbreakable.

H & F MANUFACTURING CORP.
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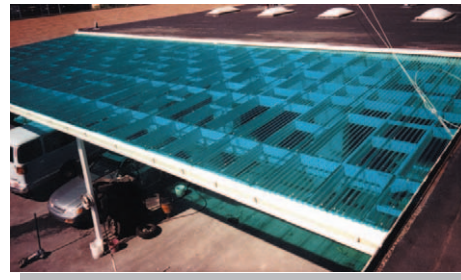
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Unitrex Polycarbonate as Replacement Panels:

- To replace deteriorated or discolored FRP panels.
- To replace existing asbestos cement panels for health and environmental reasons.
- As an alternative to heavy, brittle, expensive to install cement board panels.
- Where steel and aluminum panels require replacement due to corrosion.
- Where other types of siding and roofing require replacement due to severity of weather or other environmental conditions.

Installation:

You will be amazed at how easy Unitrex Polycarbonate panels are to install. These lightweight panels are a breeze to handle and require no special equipment. Unitrex Polycarbonate panels can be cut in the field with conventional circular saws, or other standard equipment.



Sales and Service:

Since H & F was founded in 1973, we have taken great pride in our sales expertise and customer service. Our qualified technical salespeople will not only help you determine which products are suitable for your project, but we will help you determine exact specifications and delivery times.



UNITREX POLYCARBONATE CORRUGATED AND FLAT PANELS

Profile	Configuration Detail	Width	Lengths Up To	Thickness	Colors	Oz./Ft. ²	Conforms To
4.2" x 1-1/16"		42"	38'	1/16"	White, Clear, Solar Control, Green Translucent	7	FRP, Asbestos Cement
2.67" x 7/8"		40"	38'	1/16"	Green Translucent	7	FRP, Steel, Aluminum
Ultra-R		38"	40'	1/16"	Clear, White Translucent 45% LT	7	Metal R-Panel
7.2" x 1-1/2"		47-7/8"	38'	1/16"	White, Clear, Solar Control	7	FRP, Steel, Aluminum
Greca 76 Rib		26" or 49.6"	specific lengths up to 24'	1/32"	Clear, White Opal, Smooth Cream, Solar Control, Solar Gray, Red Brick, Hunter Green, Misty Green	4	Box Rib
9" Classic Rib		38"	specific lengths up to 24'	1/32"	White Opal, Soft White, Solar Control, Clear	4	FRP, Steel, Aluminum
12" R-Panel		38"	specific lengths up to 24'	1/32"	White Opal, Soft White, Solar Control, Clear	4	FRP, Steel, Aluminum
Flat		4' x 8' Standard	1/16"	White, Clear, Solar Control, Green Translucent	7		
			1/8"	Clear	12		
			1/4"	Clear	24		
			1/2"	Clear	48		

Non-standard colors and sizes for all profiles and product lines available upon request.

Unitrex Polycarbonate Chemical Resistance

For chemicals and corrosive media not found on this list, please contact your H & F representative. It is important to note that H & F Polycarbonate panels are generally not recommended for use with acetone, ketones, ethers, and aromatic and chlorinated hydrocarbons. The information on chemical resistance is based on our research and experience. It serves as a basis for recommendation.

The table below uses the following key:

R — Resistant **LR** — Limited Resistance **N** — Not Resistant

Chemical	Concentration %	Resistance	Chemical	Concentration %	Resistance
Acetic Acid	10	R	Ozone	–	R
Aluminum Chloride	Saturated	R	Perchloric Acid	10 (Concentration)	R (LR)
Aluminum Sulfate	Saturated	R	Phosphoric Acid	10	R
Ammonia (Gas)	–	N	Phosphorous Pentoxide	25	R
Ammonium Chloride	–	R	Phosphorous Trichloride	–	N
Ammonium Fluoride	–	N	Potassium Bichromate	–	R
Ammonium Hydroxide	–	N	Potassium Bromate	–	R
Ammonium Nitrate	–	R	Potassium Bromide	–	R
Ammonium Sulfate	Saturated	R	Potassium Chloride	Saturated	R
Ammonium Sulfide	–	N	Potassium Cyanide	–	N
Antimony Trichloride	Saturated	R	Potassium Dichromate	Saturated	R
Aqua Regia (3 part HCl 1 part HNO ₃)	–	LR	Potassium Hydroxide	–	N
Arsenic Acid	20	R	Potassium Metabisulfite	4	R
Barium Chloride	–	R	Potassium Nitrate	Saturated	R
Boric Acid	–	R	Potassium Perchlorate	10	R
Bromine	–	N	Potassium Permanganate	10	R
Calcium Chloride	Saturated	R	Potassium Persulfate	10	R
Calcium Hypochlorite	–	R	Potassium Rhodanide	Saturated	R
Calcium Nitrate	–	R	Potassium Sulfate	Saturated	R
Carbon Bisulfite	–	R	Silver Nitrate	–	R
Carbon Tetrachloride	–	N	Sodium Bicarbonate	Saturated	R
Chlorine Gas (Dry)	–	R	Sodium Bisulfate	Saturated	R
Chlorine Gas (Wet)	–	N	Sodium Bisulfite	Saturated	R
Chromic Acid	20	R	Sodium Carbonate	Saturated	R
Copper Sulfate	Saturated	R	Sodium Chlorate	–	R
Ferric Chloride	Saturated	R	Sodium Chloride	Saturated	R
Ferrous Sulfate	–	R	Sodium Chromate	–	R
Hydrochloric Acid	20 (Concentrated)	R (N)	Sodium Hydroxide	–	N
Hydrofluoric Acid	20	R	Sodium Hypochlorite	5% Chlorine	R
Hydrogen Peroxide	30	R	Sodium Nitrate	–	R
Hydrogen Sulfide	–	R	Sodium Sulfate	Saturated	R
Iodine (aqueous solution)	5	R	Sodium Sulfide	Saturated	LR
Iodine	–	N	Stannous Chloride	–	R
Magnesium Chloride	Saturated	R	Sulfur Dioxide (Gas)	–	R
Magnesium Sulfate	Saturated	R	Sulfuric Acid	<50 (50<70)	R (LR)
Nickel Sulfate	–	R	Trisodium Phosphate	–	R
Nitric Acid	20	R	Zinc Chloride	–	R
Nitrous Oxide	–	R	Zinc Sulfate	–	R

Table of Physical and Structural Properties

Mechanical Properties

Tensile Strength	9500 psi
Flexural Modulus	400000 psi
Flexural Strength	12500 psi
Impact Strength (Izod) 68°F	17 ft -lb/in
Impact Strength (Izod) 32°F	12 ft -lb/in
Elongation.	75%
% Light Transmission (Clear)	90%
Deflection Temperature	270°F

Thermal Properties

Thermal Conductivity	4.2×10^{-4} cal/sec/cm ² /(°C/cm)
Coefficient of Expansion	3.9×10^{-5} in/in/°F
K-Factor.	10^{16} W/m°C

Electrical Properties

Volume Resistivity	10^{16} ohm-cm (50% RH + 23°C)
Dielectric Strength	500 - 600 volts/mil
Dielectric Constant	3.6 Khz

Specifications for Unitrex Polycarbonate Panels

- Panels shall be Unitrex Polycarbonate manufactured by H & F Manufacturing Corporation, PO Box 85, Feasterville, PA 19053-0085. Phone: 800.474.2732 Local: 215.355.0250 Fax: 215.355.4066, Email: info@hfmfgcorp.com www.hfmfgcorp.com.
- Nominal thickness shall be 1/32" or 1/16".
- Nominal weight shall be 4 or 7 ozs. per square foot.
- The corrugation configuration shall be 7.2" x 1-1/2", 4.2" x 1-1/16", 2.67" x 7/8", Ultra-R, Greca 76, 12" R-Panel, and 9" Classic Rib.
- Panels shall have a non-combustible Flame Spread Rating of 6.*
* Excluding 1/32" Thick Material (CC1 rating).