



CRACK GUARD

FOR INSULATED CONCRETE FORMS

MANUFACTURER'S GUIDE SPECIFICATION

PART 1 – GENERAL

1.01 GENERAL:

Poly-Wall Crack Guard membrane is a self-adhering sheet membrane waterproofing for application on Insulated Concrete Forms (ICFs), for exterior below grade wall surfaces.

1.02 RELATED SECTION

Concrete – Section 03300
Masonry – Section 04500

1.03 DESCRIPTION

Surface Treatment: Provides a barrier to ground water passage from soils through wall. Cold weather application down to 10°F is possible with the use of Poly-Wall Activator. Poly-Wall Crack Guard is a strong self-adhering sheet membrane consisting of high strength polyethylene backing laminated to a layer of rubberized asphalt. Apply to the exterior wall surface from slightly below below grade line to top of footings. Color is light gray.

1.04 QUALITY ASSURANCE

Manufacturer is specialized in the technology of surface protection coatings and barriers.

1.05 SUBMITTALS

Submit Poly-Wall data and Manufacturer's installation recommendations as required in Division 1 - Submittals.

1.06 ENVIRONMENTAL REQUIREMENTS

Crack Guard shall be applied at temperatures in the range of +10°F to +100°F. Application of Crack Guard below +10°F shall not be permitted. Ambient temperatures should be considered at the time of application and until backfill. If temperatures at the time of application or any time before backfilling are expected to fall below +45°F Poly-Wall Activator should be used. Applications below +45°F shall continue after surfaces are free of frost or ice and Poly-Wall Activator is applied directly to the Poly-Wall Crack Guard adhesive backing at least two hours prior to attaching to the wall surface.



1.07 DELIVERY, STORAGE AND HANDLING

- A. Delivery, storage and handling of Poly-Wall products shall be the responsibility of the trained Qualified Installer.
- B. Poly-Wall Crack Guard should not be stacked higher than 5 feet vertically nor double stacked on pallets. Stored materials in cool area away from any direct sun light.
- C. Store all Poly-Wall materials in a dry place.

1.08 WARRANTY

Poly-Wall Crack Guard is warranted to be free of manufacture defects for a period of Two (2) years from date of application. Material will be provided at no charge to replace any defective product.

PART 2 - PRODUCTS

2.01 MANUFACTURER

Approved Manufacturer shall be:

Protective Coatings Technology, Inc.
Menomonie, WI

(800) 846-3020

2.02 MATERIAL

Poly-Wall Crack Guard is a strong, self-adhesive sheet consisting of high-density polyethylene film laminated to a uniform thickness of rubberized asphalt.

Poly-Wall Activator is a proprietary blend of solvents used to activate the adhesive backing on the Crack Guard membrane in cold temperatures. Poly-Wall Activator is flammable and appropriate precautions must be observed.

2.03 PERFORMANCE CHARACTERISTICS

(See the table at the end of this document)

PART 3 - EXECUTION

3.01 EXAMINATION

Prior to application to the ICF wall surface, the acceptability of the surface to receive Poly-Wall Crack Guard shall be inspected by the Owner or Owner's Representative to establish that the surface to be covered are in accordance with contracts with allied trades.

1. By application of Poly-Wall Crack Guard the Manufacturer does not accept the quality of the ICF system as to individual components or the structural integrity of its components and their combination.
2. Drain tile shall not be omitted because of the water resisting characteristics of Poly-Wall Crack Guard. Drain tile shall be located on the outward side of the footing level with the footing base.
3. ICF walls shall be plane and true in both exposed and unexposed areas to receive application.
4. Blowouts, surface voids, sharp projections, and cracks will require corrective action by the responsible trade.
5. ICF surfaces shall be free of dust and dirt that will interfere with the adhesion of Poly-Wall Crack Guard.

3.02 PREPARATION

- A. All surfaces to be covered are to be smooth, dry, frost free, clean and free of any dust or dirt like materials.
- B. ICF surfaces should be consistent and smooth. Protruding ties or other materials must be made flush prior to Poly-Wall Crack Guard application.
- C. ICFs should be protected from exposure to Ultraviolet rays as much as possible. Ultraviolet exposure may cause degradation of the insulated concrete form and negatively impact the adhesion and performance of the Poly-Wall Crack Guard membrane.
- D. When required, Poly-Wall Activator should be applied to the adhesive backing of the Crack Guard membrane from 1 to 24 hours prior to the membrane being applied to the forms. Poly-Wall Activator should be applied lightly with an application rate of about 640 square feet (two rolls) per gallon. Once the activator has been applied, the protective release paper should be replaced to protect the adhesive backing from contamination and over drying.
- E. Preparation work such as cutting the membrane into appropriate length pieces should be done in a shaded area.

3.03 APPLICATION

A. Application

1. Apply Crack Guard vertically across the wall with shingle-like overlaps. Side laps and end laps must lap at least 2.5 inches. Apply from just below grade line to top of footing.
2. Hand roll overlap seams with a 2" wallpaper hangar's roller. Use heavy hand pressure while smoothing out the membrane surface as it is applied.
3. Upper termination edge needs to be pressed firmly with a narrow

- roller and mechanically attached using appropriate fasteners or a termination bar.
4. Expansion / contraction and control joints shall be filled flush with a joint filler, water stop or sealant. A 12-inch strip shall be placed directly over the joint before final membrane application.
5. Projections such as drain pipes and conduits must be reinforced. Apply an extra layer of Crack Guard to the intersection prior to final membrane application.
6. Visually inspect finished membrane for tears, punctures and blemishes before covering. Make repairs by removing all damaged materials so only well bonded materials remain. Apply new Crack Guard over the affected area extending 6 inches onto previously applied membrane.

B. Protection of Treated Surfaces

1. Protection board is recommended for best results. When protection board is used, install the same day the membrane is installed. To hold board in place, apply a few spots of a latex construction adhesive to the board and membrane. Press onto protected wall surface.
2. If protection board is not used, much care must be taken placing the backfill so as not to damage the Poly-Wall Crack Guard membrane.
3. When backfilling, use very clean fill, free of sharp stones, rocks, tree roots, construction materials and debris. Place backfill materials in 6 to 8 inch compacted lifts.
4. Ultra violet rays adversely affect Poly-Wall Crack Guard. The installed membrane should not be

left exposed for more than 7 days.
Backfill as soon as possible.

3.04 LIMITATIONS

Manufacturer will not warrant system if any of the following has occurred:

1. All installation instructions and recommendations were not followed carefully.
2. Poly-Wall Crack Guard membrane was installed over ICFs without adequate surface strength to hold the membrane. Prolonged exposure of ICFs to ultraviolet rays will damage the ICFs and result in poor surface strength.
3. Foundation wall or installed System has been damaged.
4. Interior moisture reaches the membrane / wall interface and freezes, breaking the bond.
5. Alterations, additions, or penetrations of the System after installation.
6. Application over an incompatible coating or expansion/contraction device.
7. Cracks, separations or defects greater than 1/16 inch develop in the foundation walls or footings.
8. Any construction design or method that allows water to enter above, behind or below the system.
9. Inadequate drainage due to improper or defective site grading, structure and foundation drainage system resulting in hydrostatic pressure against the exterior wall surface.

PERFORMANCE CHARACTERISTICS

POLY-WALL CRACK GUARD		
PROPERTY	TEST PROCEDURE	TYPICAL VALUE
TENSILE STRENGTH	Membrane: ASTM D412	325 PSI
	Film: ASTM D 822	6500 PSI
ELONGATION	ASTM D 412	600%
PERMEANCE	ASTM E 96-B	.05 grains/sq.ft./ hr./in.
PEEL ADHESION	ASTM D 1000	15.0 lbs./in. width
OVERLAP BOND	ASTM D 1000	8.0 lbs./in. width
PLIABILITY	ASTM D 146	no effect @ -15 deg. F
PUNCTURE RESISTANCE	Membrane: ASTM E 154	40 lbs.
METABOLITES	Analysis: Chemical and Visual	excellent resistance
WATER ABSORPTION	ASTM D 570	less than 1% weight