

Section 07110:
GACO WESTERN FIELD CURING
NEOPRENE SHEET FLASHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This specification is designed to provide waterproof sheet flashing with built-up or elastomeric roofing systems, decks and below grade or between slab waterproofing membranes. It may be installed wherever the roofing or waterproofing membrane terminates at walls, parapets, curbs, expansion joints, penetration, protrusions, or where one roofing system ties to another. Neoprene sheet installed with contact adhesive requires relatively smooth surface to obtain a watertight seal. Surfaces such as broom finished concrete or textured stucco requires grinding smooth or a surfacing to obtain a tight bond.
- B. Gaco Western field curing neoprene sheet is highly pliable, which allows ease of application to most smooth changes in shape and irregularities. It cures to shape with exposure to atmospheric conditions to a durable, weather resistant, waterproof elastomeric sheet. The cure rate under normal conditions will produce about 50% of tensile strength in 30 days and 100% in 120 days.
- C. The field curing neoprene sheet may be applied with contact adhesive to concrete, masonry, metal, wood, elastomeric roofing and waterproofing membranes. It can be hot mopped into conventional built-up roofing systems with hot bitumen.
- D. Field curing neoprene shall not be used in areas subject to traffic on Gaco Western Traffic Deck specifications. GacoFlex A-38 acrylic latex coatings should not be used over neoprene sheet in areas subject to water soak.

1.2 RELATED SECTIONS

- A. Drains, Vents, and Penetrations: Section 07700.
- B. Gutters, metal cap and counter flashing: Section 07710.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's standard submittal package including specification, installation instructions, and general information for each waterproofing material.
- B. Applicator Qualifications: Submit current "Qualified Applicator" certificate from the specified waterproofing manufacturer.

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1.4 QUALIFICATIONS

- A. Primary waterproofing materials shall be products of a single manufacturer. The primary manufacturer shall recommend secondary materials. Manufacturer shall have a minimum of 10 years experience in the manufacture of materials of this type.
- B. Applicators shall have a minimum of 5 years experience in the application of waterproofing materials of the type specified. Applicator shall possess a current "Qualified Applicator" certificate from the specified waterproofing manufacturer.
- C. Pre-Bid Conference: 10 working days prior to bid opening there is to be a mandatory Pre-Bid Conference. Anyone not attending the Pre-Bid Conference will not be allowed to bid the project. All products considered an equal to the specified product or any changes in the scope of work installation or specifications must be presented at the Pre-Bid Conference. If a change in the specifications is accepted, it will be considered as an alternate and will be presented as a bid amendment issued 5 working days prior to the bid opening. No other changes to specification or bid documents will be accepted.
- D. Pre-Installation Conference: Just prior to commencement of the fluid application waterproofing system, meet at the site with a representative of the coating manufacturer, the waterproofing contractor, the general contractor, the architect and other parties affected by this section. Review methods and procedures, substrate conditions, scheduling and safety.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store all coating materials in the original unopened containers at 50° - 80°F (10° - 27°C) until ready for use.
- B. Follow the special handling or storage requirements of the manufacturer for cold weather, hot weather, etc.
- C. Safety: Refer to all applicable data, including, but not limited to MSDS sheets, PDS sheets, Product labels, and specific instructions for specific personal protection requirements.
- D. Ventilation: Provide adequate ventilation to prevent the accumulation of hazardous fumes during application.
- E. Environmental requirements: Proceed with work of this section only when existing and forecasted weather conditions will permit the application to be performed in accordance with the manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Acceptable Manufacturers:
Gaco Western

2.2 MATERIALS

- A. Thinner and Cleaner: Gaco Western's T-5125.
- B. Primer:
 - a. Ferrous Metals - E-5320
 - b. Copper - U-5677
 - c. Concrete - U-5677 and E-5320 or E-5511
- C. Adhesive: Gaco Western's N-1207
- D. Color Topcoat: U-64 or U-66 Polyurethane coating, A-30 Acrylic Latex coating. (Coatings on black neoprene are subject to discoloration).
- E. Bitumen: Not supplied by Gaco Western
- F. Roofing Felt: Not supplied by Gaco Western

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that substrate is ready to receive work, surface is clean, dry and free from projections, depressions, loose scale, sand, curing compounds, grease, oil, paint, and other foreign deposits. Any substrate that is to receive adhesive must be free of bituminous products. All penetrations shall be installed prior to commencement of waterproofing application.
- B. Verify that the plywood shall conform to U.S. Product Standard PS 1-92 and shall carry the grade trademark of the American Plywood Association Grades APA BC EXT or APA AC EXT are acceptable. These are the minimum grades suitable for liquid coating applications. Refer to Gaco Western's General Instruction GW-2-3 for complete information on the installation and fastening of plywood.
- C. Do not begin work until concrete substrate has cured 28 days, minimum.
- D. Verify that the concrete meets the requirements of the coating manufacturer. Refer to Gaco Western's General Instruction GW-2-1 for complete information on the installation and finishing of concrete.
- E. Verify that all other work involved with this area, done under other sections, has been completed and accepted by the architect and general contractor prior to starting the waterproofing application.

3.2 PREPARATION

- A. Clean substrate to remove any and all surface contaminants. Refer to Gaco Western's General Instructions GW-2-2 Surface Preparation.
- B. Mask off all adjoining areas that are not to receive the fluid applied waterproofing.
- C. Provide a suitable workstation to mix the coating materials.

3.3 INSTALLATION - With Elastomeric Systems

- A. Technical Advice: The installation of this waterproofing membrane shall be accomplished in the presence of, or with the advice of the manufacturer's technical representative. Contact the nearest regional office for assistance.
- B. Detail Work: Install flashing system consisting of primer where called for, adhesive or hot bitumen, field curing neoprene sheet and optional elastomeric topcoat, or felt strip and bitumen flood coat. Apply in accordance with this specification and General Instructions published by Gaco Western. Work shall be performed by an applicator approved by Gaco Western.
- C. Concrete: Remove curing compounds by etching with 10% muriatic acid and sweeping. Follow with a clean water rinse and allow to dry.
- D. Concrete Primer/Sealer: When elastomeric coating systems are to be applied in conjunction with neoprene sheet, apply GacoFlex U-5677 polyurethane at the rate of 1/3 gallon per 100 square feet (1.25 L / 9.3 m².) Allow to dry at least 1 hour and no more than 72 hours. Apply GacoFlex E-5320 epoxy emulsion at the rate of 1/2 gallon per 100 square feet (1.89 L / 9.3 m².) Let dry 24 to 48 hours minimum. For maximum solvent resistance see General Instructions, GW-2-2 for priming concrete.

Alternative Concrete Primer/Sealer: Apply one coat of GacoFlex E-5511 to all surfaces to receive the fluid applied waterproofing, except areas previously caulked, flashed or fabric reinforced. Apply at a rate of one gallon per 150 sq. ft. (3.78 L / 13.9 m²) and allow to cure at least 6 hours, but no more than 3 days before applying the basecoat.

- E. Metal: Use 10% muriatic acid on galvanized metal, copper or aluminum. Use GacoFlex E-5320 on galvanized metal or aluminum at the rate of one gallon per 200 to 400 square feet (3.78 L / 18.6 – 37.2 m²). Use GacoFlex U-5677 primer on cleaned copper or aluminum at the rate of one gallon per 300 square feet (3.78 L / 27.9 m²).

F. Plastic: Clean plastic materials (rigid PVC or fiberglass) with a Gaco Western thinner and cleaner or material such as Bon Ami (which must be completely washed off and the surface allowed to dry). Prime with GacoFlex E-5320 at the rate of one gallon per 300 square feet (3.78 L / 27.9 m²). The precautions listed above apply.
Note: Do not use polyethylene, polypropylene, nylon or Teflon plastics over Gaco Western neoprene sheet flashing.

G. Neoprene Sheet: Cut neoprene sheet to pattern where necessary in such way that it can be installed in a relaxed condition and adapt to contours without bridging. Keep polyethylene liner in position to facilitate movement and placement of field curing sheet.

H. Adhesive: Stir N-1207 adhesive thoroughly before using. (Keep container covered when not in use). Apply N-1207 adhesive by brush or roller at a rate of 3/4 gallon per 100 square feet (2.84 L / 9.3 m²) to substrate and to neoprene sheet on side opposite liner. Do not apply adhesive to cant strips or to 2" (5.08 cm) strip centered over moving cracks. Properly dried adhesive will have a "tack" similar to pressure sensitive tapes, but N-1207 adhesive should not lift off when touched.

Allow adhesive to dry free of solvent. This may take only 10 minutes in optimum conditions to as long as 1 1/2 hours on cold days. A proper bond cannot be formed if solvents are trapped due to premature placing of this sheet. If left "open" too long to form a proper bond, adhesive coated surfaces may be reactivated by application of a second coat of N-1207 adhesive, or a light solvent wipe or spray.

Carefully position the sheet, pressing firmly into place and flattening to prevent air entrapment. Do not work too large of an area at a time.

NOTE: Field curing neoprene sheet can be slightly stretched to conform to various shapes and will cure to applied shape with minimum stress. Field curing sheet can be rolled or folded provided a plastic or cloth liner is used to prevent adhesive contact with the uncoated sheet.

I. Roll the entire sheet with a flat faced steel roller to obtain positive contact to the substrate and to remove any bubbles or fishmouths. Stitch all edges, corners and laps using a knurled hand stitcher. If small bubbles of air under the sheet appear inserting a hypodermic needle into the air cavity and pressing the air out can remove them. Coat the puncture with N-1207 adhesive.

Overlap edges a minimum of 3" (7.62 cm) and end joints 6" (15.24 cm) in such a way to shingle or shed water.

J. Apply caulking at all edge intersections of laps, inside and outside corners.

K. Top coating: Allow adhesive 24 hours to cure before application of solvented Gaco Western coatings to neoprene sheet.

L. Apply a Gaco Western coating at a rate of 1 gallon per 100 square feet (3.78 L / 9.3 m²) overall. Apply evenly without puddles or heavy runs. Heavier applications than specified may wrinkle the flashing.

M. If applying GacoFlex LM-60 membrane waterproofing to flashing, the flashing must be coated with N-1207 and let dry 2 to 4 hours prior to application of LM-60.

3.4 INSTALLATION - To Bituminous Surfaces

NOTE: Do not use cold roofing cements containing naphtha or naphtha-like solvents to attach Gaco Western sheet flashing to built-up roofing.

A. Built-up roofing shall be complete except for the final coat and applications of gravel.

B. Bond neoprene flashing to non-bituminous surfaces (parapets, etc.) as described above by application of primer and adhesive.

C. Fully mop the roof surface to be flashed with hot bitumen.

- D. Imbed neoprene sheet by pressing down firmly into hot bitumen keeping free from wrinkles and air pockets. There shall be a minimum of 6" (15.24 cm) of flashing in contact with roof surface.
- E. Mop over the neoprene flashing with a additional hot bitumen and strip in, using two ply felt stripping (10" and 12" (25.4 cm to 30.48 cm), centered over the edge of the flashing.
- F. Install gravel or other finish treatment per general specification.