

PART 1 - GENERAL

1.1 RELATED
SECTIONS

- .1 Section 07 20 00 - Insulation.

1.2 PRODUCT DATA
SHEETS

- .1 Submit product data sheets in accordance with Sections 01 33 00 and 01 78 00.
- .2 For waterproofing membrane indicate VOC in g/L during application and curing.

1.3 QUALIFICATIONS

- .1 Applicator: company specializing in performing work of this section approved by membrane material manufacturer.
- .2 Submit manufacturer's qualification letter to Departmental Representative in accordance with Sections 01 33 00 and 01 78 00.

1.4 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver materials to job site in undamaged and original packaging indicating name of manufacturer and product.
- .2 Store pails (drums) in a dry, properly ventilated place and protect from the elements.

1.5 INSPECTION

- .1 Waterproofing installation shall be inspected by Departmental Representative before work is covered. Notify Departmental Representative when complete installation is ready for inspection.

1.6 ENVIRONMENTAL
CONDITIONS

- .1 Weather and surfaces dry.
- .2 Imminent weather forecast, dry.
- .3 Temperatures above 10 C for waterproofing membrane.

PART 2 - PRODUCTS

2.1 MATERIAL

- .1 Waterproofing membrane (spray or trowel applied): single component, liquid applied, elastomeric, water-based copolymer rubber, 52% solids, as follows:
 - .1 Water vapour permeance: maximum 34.2 ng/Pa.s.m² (0.6 perms) to ASTM E96/E96M-10, procedure B.
 - .2 Thickness: 1.5 mm (60 mil) wet film, 0.8 mm (30 mil) dry film.
 - .3 Tensile strength: 2.73 MPa (390 psi) to ASTM D412-06ae2.
 - .4 Elongation: 340% to ASTM D412-06ae2.
 - .5 Reinforcing: manufacturer's standard.
- .2 Protection board: semi-flexible core board in
 - .1 Fan folded extruded polystyrene.
- .3 Backfill material: excavated material free of rocks, concrete blocks, organic material, debris or other deleterious material that can damage the membrane.
- .4 Elastomeric coating:
 - .1 % solids by weight: 65%
 - .2 Elongation: 262% at 25 C, 116% at -18 C.
 - .3 Flexability: Pass 3.175 mm (1/8") mandrel.
 - .4 Water Vapour Transmission: 12 Perms.
 - .5 Impact Resistance: 9.07 kg (20 lbs)
 - .6 Freeze Thaw Resistance: >50 Cycles; Pass.
- .5 Hydraulic cement: as recommended by manufacturer.

2.2 EQUIPMENT

- .1 Airless spray equipment: minimum pressure of 11.72 MPa (1700 psi).

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Remove snow, water and condensation from surfaces.
- .2 Ensure surfaces are sound, clean, even and free of oil, grease, dirt, or other contaminants.

3.1 PREPARATION
(Cont'd)

- .3 Ensure all penetrations, drains, sleeves, vents, pipes and other items passing through substrate are properly placed and secured.
- .4 Ensure concrete surfaces are dry.
- .5 Crack treatment for non-working cracks or joints, maximum 6 mm: fill crack with hydraulic cement in accordance with waterproofing manufacturer's written instructions.
- .6 Repair defects that will impair adhesion and performance of membrane.
- .7 Provide forced air circulation or natural ventilation during installation and curing for enclosed applications.
- .8 Protect adjacent work from splash, spray or spillage.

3.2 APPLICATION

- .1 Apply to horizontal and vertical surfaces in accordance with manufacturer's written instructions where indicated and as follows.
- .2 Apply waterproofing membrane and reinforcing in accordance with manufacturer's instructions and as follows:
 - .1 Ensure full bond of membrane to substrate.
 - .2 Apply with trowel or airless spray equipment in multiple, uniform passes to provide seamless 1.5 mm (60 mil) wet film thickness.
 - .3 For foundation walls, commence application at the top of the footing, keeping the spray orifice 600-900 mm (2'-3') away from the wall. Carry membrane up wall to a minimum height of 150 mm (6") above final grade line or previously determined height approved by Departmental Representative.
 - .4 Ensure water tight seal to items penetrating membrane.
 - .5 Ensure continuity of building envelope air barrier.
 - .6 Upon completion of application, allow film to air dry to a tack-free film, minimum 30 minutes depending on temperature and humidity.
 - .7 Apply protection board, and insulation to Section 07 20 00, while membrane is still tacky. Do not overlap protection board.
 - .9 Protect application and curing from direct exposure to moisture and temperatures below 0 C.

-
- 3.2 APPLICATION (Cont'd) .2 (Cont'd)
.10 Apply additional material where required.
- 3.3 BACKFILLING .1 Backfill minimum 24 hours after membrane application, using care and caution to avoid damaging the waterproofing application.
- 3.4 PROTECTION .1 Apply elastomeric coating to exposed membrane above grade.
- 3.5 FIELD QUALITY CONTROL .1 Departmental Representative's independent inspection agency will inspect and test membrane in accordance with Section 01 29 83.
- .2 Shedule site visits with Departmental Representative to review work at the following stages:
.1 After delivery and storage of products, and preparatory work is complete, but before application begins.
.2 Twice during progress of work at 25% and 60% complete.
.3 On completion of work, after cleaning is carried out.
- .3 Submit site visit reports to Departmental Representative within three (3) days of each visit.
- 3.6 CLEANING .1 Remove temporary coverings and protection fo adjacent work areas. Repair or replace damaged installed products.
- .2 Clean installed product in accordance with manufacturer's written instructions.
- .3 Check drains to ensure cleanliness and proper function.
- .4 Remove debris, equipment and excess material from site.