

HYDROFIX

100% SOLIDS, FLUID-APPLIED WATERPROOFING MEMBRANE

DESCRIPTION

HYDROFIX is a 100%-solids, solvent-free, cold fluid-applied, single-component, moisture-reactive, modified elastomeric polymer that cures to form a flexible, monolithic, waterproof membrane on vertical and horizontal surfaces. Due to the moisture-reactive and non-gassing properties of the membrane, it provides an excellent barrier against both water and vapour transmission. Additionally HYDROFIX forms a tenacious adhesion bond to concrete substrates preventing lateral water migration in both above-and below-ground applications.

HYDROFIX is a fast curing waterproofing membrane designed to provide a reinforced cold fluid alternative to hot applied rubberized asphalt membrane systems and pre-formed waterproofing sheeting systems. It is applied in a high performance reinforced two-ply system or a standard single ply application. HYDROFIX cures through reaction with both atmospheric and substrate moisture to provide a "seamless", impervious membrane.

HYDROFIX can even be applied to structural surfaces with moisture present in the substrate i.e. damp or green concrete.

APPLICATIONS

HYDROFIX is available in a single viscosity for both horizontal and vertical surfaces. Typical applications are between structural slab and wearing course on parking garages, plaza decks, balconies, roof decks, terraces, mechanical equipment rooms, commercial kitchens and shower stalls. HYDROFIX is ideally suited for waterproofing below-ground foundation walls, tunnels, planters, protected roof membrane systems, and other areas where a seamless, elastomeric waterproofing membrane is required. It has excellent adhesion to most construction surfaces such as concrete, stone, milled lumber, cement block, and clean metal. Low odour and VOCs make it suitable for use in confined spaces and remedial work in occupied structures. It is an ideal cold applied alternative to hot rubberized asphalt membrane applications, especially for projects with restricted roof areas where it is difficult to operate a hot-applied heating kettle.

HYDROFIX can be applied in two system types: High Performance Reinforced Systems and Single-Coat Standard Systems. High Performance Reinforced Systems are used for hydrostatic below ground waterproofing conditions or critical roofing applications such as plaza decks, podiums, roof balconies and terraces, or Inverted Roof Membrane Assembly (IRMA) applications. Single-Coat Standard Systems are used for general waterproofing such as non-hydrostatic foundation walls and planter boxes.

LIMITATIONS

- Do not apply to wet or contaminated surfaces.
- Not intended for use as an exposed or trafficked wearing surface.
- If metal pan decking is used for concrete form, the metal pan must be vented.
- Surface temperature must be above 4°C.
- Crack bridging properties in concrete not exceeding 1,6 mm crack width.
- HYDROFIX can not be sprayed. Do not thin material.
- Do no use under thin set tile.

INSTALLATION

Surface Preparation: Acceptable substrates are cast-in-place and precast concrete, masonry block, cementitious board, untreated lumber, plywood and Orientated Strand Board (OSB), plus most clean metals. New concrete shall be trowel-finished followed by a light brush finish and properly cured in accordance with correct concrete curing procedures, and in place for 3 days minimum.

If curing compounds are required, they shall be 100% Sodium Silicate and shall be approved by CETCO. Surfaces shall be reasonably smooth, structurally sound, dry, and free of oil, grease, dirt, laitance, curing or release agents and other contamination that may be detrimental to the adhesion of the membrane. Remove splatters, fins, ridges or other projections to provide a smooth, level surface. Fill tie-bolt holes, honeycombed concrete, rock pockets, spalls or other voids and indentations with non-shrink grout. Mortar joints on block walls shall be flush pointed with the block surface. HYDROFIX

can be applied to green concrete free of surface water, ice, snow or frost. Allow a minimum of 24 hours for concrete substrate to dry after stopping water cure on decks or removing forms. Lightweight concrete is not an acceptable substrate. Clean metal to expose a bright finish removing any oils and rust. **Note:** Rough surfaces tend to promote air entrapment in the membrane during application, which might result in small blistering in the waterproofing membrane. Rough surfaces also require use of more material. Primer is not typically required for adhesion to nonporous substrates. However, if pinhole and blister problems occur as a result of air and/or moisture vapours emitted from the concrete and environmental conditions, consult CETCO for installation guidelines.

Detailing: Prior to membrane installation detail all joints, cracks, expansion joints, drains, penetrations, surface and material substrate transitions in accordance with manufacturer's Guide Specifications and details. Apply a minimum 19 mm 45 degree angle fillet of HYDROFIX-TG or CETSEAL sealant at the juncture of all vertical and horizontal substrate surface transitions; including detailing pipes and other penetration details.

Apply a strip coat of HYDROFIX over sealant fillets extending onto the horizontal deck by 150 mm and up the vertical perimeter walls a minimum 200 mm, or alternatively up to the height specified in the project drawings for termination to tie into flashings or adjacent building envelope material. Apply a minimum 100 mm wide strip coat of HYDROFIX membrane over all concrete joints and cracks less than 1,6 mm. All strip coat detailing shall be a minimum of 1,1 mm thick and allowed to cure for a minimum of 4 hours prior to membrane installation.

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MEMBRANE INSTALLATION

HYDROFIX is a one-component, ready-to-use material that requires no mixing. For ease of application, condition materials at room temperature prior to application. Apply material with a trowel, roller or long-handle notched squeegee. Squeegee applications are preferred for horizontal decks. Typically HYDROFIX is tack free in 60 minutes and cures to a waterproof seal in 6 to 24 hours in standard temperature and humidity. Environmental conditions and thickness of application will affect actual cure time.

HYDROFIX can be applied in two system types: Standard Systems and High Performance Reinforced Systems. High Performance reinforced systems consist of two application coats of HYDROFIX reinforced with Stratabond 100 polyester fabric. High Performance Reinforced Systems are used for hydrostatic below grade waterproofing or critical roofing applications such as plaza decks, podiums, roof balconies and terraces, or IRMA roof applications. Standard Systems consist of a single application coat of HYDROFIX and are used for general waterproofing such as non-hydrostatic foundation walls and planter boxes. Plaza decks with concrete topping slabs and insitu cast concrete on vented metal pan decks require High Performance Reinforced Systems.

Horizontal Applications:

Standard 1,5 mm System: Apply HYDROFIX at a minimum coverage rate of 1,6 litres per sqm or as required to obtain a 1,5 mm dry film thickness to the entire area to receive waterproofing; including over all detail coats. Use a roller, notched squeegee, or flat squeegee with guide pins to achieve a uniform thickness. Backroll the entire area and allow to cure. Apply membrane up the perimeter walls minimum 200 mm or to the height specified in the project drawings for termination to tie into flashings or adjacent building envelope material.

High Performance 2,8 mm Reinforced Deck System: Apply base coat of HYDROFIX at a minimum coverage rate of 1,5 litres per sqm or as required to obtain a uniform 1,4 mm thickness to the entire area to receive

waterproofing; including over all detail coats. Use a roller, notched squeegee, or flat squeegee with guide pins to achieve a uniform thickness. Immediately install Stratabond 100 polyester reinforcing fabric into the entire surface of uncured HYDROFIX ensuring full contact. Cut Stratabond 100 fabric to end 25 mm from all membrane termination edges and around penetrations. Install Stratabond 100 carefully to avoid wrinkles with fabric edges overlapped minimum 10 mm. In the event of wrinkles or fishmouths, cut the fabric and overlap the excess to avoid trapped air. Apply membrane up the perimeter walls minimum 200 mm or as per the height specified in the project drawings for termination to tie into flashings or adjacent building envelope material. Allow base layer membrane coat to set to a firm consistency, then apply an additional coat of HYDROFIX at 1,5 litres per sqm or as required to obtain a uniform 1,4 mm dry film thickness. Top membrane coat shall extend past the edge of the fabric to completely encapsulate it. Total reinforced system dry film thickness should be 2,8 mm. Install RAP-LW40 protection course or CETCO Approved Protection Course into HYDROFIX before the material surface cures. Overlap RAP-LW40 protection course edges minimum 50 mm and seal edges with either a back-roll application of HYDROFIX or CETCO Seamtape. CETCO Bitumen Protection Boards should be butt-jointed and overlapped with CETCO Seamtape.

Vertical Applications:

Standard 1,5 mm Wall System: Using a roller or trowel, apply HYDROFIX in two coats at a coverage rate of 0,8 litres per sqm per coat for a final dry film thickness of 1,5 mm. Apply membrane up the walls to the height specified in the project drawings for termination and to tie into flashings or adjacent building envelope material. Wait minimum 4 hours between each coat.

High Performance 2,8 mm Reinforced Wall System: Using a roller or trowel, apply base coat of HYDROFIX at a minimum coverage rate of 1,5 litres per sqm or as required to obtain a uniform 1,4 mm dry film thickness. Immediately install Stratabond 100 polyester reinforcing fabric into

the entire surface of uncured HYDROFIX ensuring full contact. Cut Stratabond 100 fabric to end 25 mm from all membrane termination edges and around penetrations. Install Stratabond 100 carefully to avoid wrinkles with fabric edges overlapped minimum 10 mm. In the event of wrinkles or fishmouths, cut the fabric and overlap the excess to avoid trapped air. Allow base layer membrane coat to cure a minimum 4 hours to a firm consistency, then apply an additional coat of HYDROFIX at a minimum coverage rate of 1,5 litres per sqm or as required to obtain a uniform 1,4 mm dry film thickness. Top membrane coat shall extend past the edge of the fabric to completely encapsulate it. Total reinforced dry film thickness should be 2,8 mm. Apply membrane up the walls to the height specified in the project drawings for termination and to tie into flashings or adjacent building envelope material. Install RAP-LW40 protection course into HYDROFIX before the material surface cures. Overlap protection course edges minimum 50 mm and seal edges with either a back-roll application of HYDROFIX or CETCO Seamtape.

Note: All fluid applied product application coverage rates stated are based upon theoretical coverage relative to the percentage of solids in the material. These are minimum application rates to achieve the required dry film thickness for the system and do not account for substrate condition or application technique. Thereby, a thicker application of the product may be necessary then noted herein to achieve the required dry film thickness for the system.

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Protection and Topping Material Placement: Both horizontal and vertical areas should be adequately protected from puncture from further construction activity or backfilling. The RAP-LW40 protection course membrane use may vary with jobsite conditions and vertical or horizontal applications. Backfill or topping material placement operations should not proceed until membrane has cured a minimum 24 hours at 21°C or 48 hours in colder conditions.

Clean Up: Before material cures, clean adjacent areas to remove stains or spills and clean tools with toluene or xylene. Do not wash off skin with solvents; use waterless hand cleaner for skin. CAUTION: Xylene and toluene are combustible and flammable solvents.

Observe all regulations with regards to working with flammable materials. Workmen must wear appropriate protective clothing, eye and skin protection and NIOSH-approved breathing apparatus (organic cartridge recommended).

PACKAGING

18,9 litre pails.

SHELF LIFE

Store in original unopened containers in a cool, dry area at temperatures below 26°C for a 12 month shelf life. Protect unopened containers from heat and direct sunlight. Storing at elevated temperatures will reduce shelf life.

WARNING AND HAZARDS

Combustible liquid and vapour. Keep away from heat and flame. Do not heat container or store at temperatures greater than 38°C. Do not thin. Use only with adequate ventilation. Avoid contact with the eyes or skin, especially open breaks in the skin. In the event of skin contact, remove immediately and wash with warm soapy water. MAY BE HARMFUL IF SWALLOWED! If swallowed, do not induce vomiting. CALL PHYSICIAN IMMEDIATELY! Use protective measures to avoid contact with eyes and skin. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. GET MEDICAL ATTENTION! KEEP OUT OF REACH OF CHILDREN. Refer to MSDS for important warnings and product information.

LIMITED WARRANTY

CETCO warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any CETCO materials prove to contain manufacturing defects that substantially affect their performance, CETCO will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by CETCO with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. CETCO specifically disclaims liability for any incidental, consequential or other damages, including, but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The financial value of CETCO's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the CETCO material in question.

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TECHNICAL DATA		
PROPERTY	TEST METHOD	TYPICAL VALUE
Composition		Modified Polymer
Colour		Black
Setting Time at 25°C, 50% RH 1,5 mm Tack-free Set 1,5 mm Initial Through Set		1 hour 4 hours
Solids Content	ASTM D2697	100%
Low Temperature Flexibility	ASTM C836	No Cracking
Low Temperature Crack Bridging	ASTM C836	No Cracking
Hardness (Shore A)	ASTM C661	10 (±3)
Elongation	ASTM D2370	350%
Tensile Strength	ASTM D2370	0,655 N/mm ²
Water Vapour Transmission Rate	ASTM E96	0,06 perms
Maximum V.O.C. Content		< 40 grammes / litre