

DUAL CORE HORIZONTAL (DCH) WATERPROOFING

Deck, Balcony, Sidewalk and Plaza Horizontal Waterproofing System

MANUFACTURER

Polyguard Products, Inc.
Ennis, TX 75119
(214) 515-5000
www.polyguard.com

PRODUCT DESCRIPTION

Basic Uses

DCH is a post-applied, robust waterproofing system for new or rehabilitation waterproofing of horizontal surfaces covered by concrete, unit paving or geo-fill.

COMPOSITION & MATERIALS

DCH is a three-component waterproofing system: a base coat fluid layer of LM-85 SSL or Stretch Flex, then a sheet layer of 650 Membrane or PRM™ installed over the base coat, and finally a drainage and protection layer of Polyflow® 18 installed over the sheet membrane. For balcony decks with less than 3-inches of concrete and foot traffic only, use Polyflow® BD. Approved accessories are LM-95 Liquid Membrane (LM-95), Detail Sealant PW™, 650 LT Liquid Adhesive, California Sealant, and Detail Tape.

Information about LM-85 SSL, Stretch Flex, 650 Membrane, PRM™, Polyflow BD, Polyflow 18; and related accessories, can be found under their individual data sheets on Polyguard's website.

INSTALLATION

Surface Preparation

Slope horizontal surfaces to drain.

For remediation work, remove existing waterproofing and foreign materials from the receiving substrates to expose the original concrete surface.

Adhere the DCH system (base coat, sheet membrane, drainboard, and related accessories) to concrete/substrates that are sound, dry, clean and free of contaminants including frost.

Cast-in-Place Concrete:

Structural concrete must be allowed to cure a minimum of seven (7) days. For lightweight structural concrete, the minimum is fourteen (14) days. Cover exposed concrete in anticipation of rain, or allow additional drying time, if the concrete gets wet during the drying time. Concrete sealing and curing chemicals are not recommended. Use of sealing or curing chemicals will require compatibility testing and/ or removal of the chemical.

Fill and repair single bug holes of 1/2-inch or greater, or cavities in concrete with a Portland cement grout or concrete. Single bug holes can also be filled with Detail Sealant PW. Finish flush with the surrounding surface. Fill and repair single bug holes of 1/2-inch or greater, or cavities in concrete with a Portland cement grout or concrete. When using LM-85 SSL, single bug holes can also be filled with LM-95 Liquid Membrane. When using Stretch Flex, single bug holes can also be filled with Detail Sealant PW. Finish flush with the surrounding surface.

All cracks over 1/16-inch in width, and any moving cracks under 1/16-inch, shall be routed out to a minimum of 1/4-inch width and sealed using Polyguard® Detail Sealant PW™. Allow adequate curing time per the manufacturer's directions. Upon cure, install by one of the following methods:

1. Install an 8-inch-wide strip of Polyguard® LM-85 SSL at a rate of 26 sq. ft. per gallon to achieve a 60-mil application over the crack.

Horizontal to Vertical concrete transitions, install 1/2-inch tooled cove bead using Polyguard® Detail Sealant PW™ or LM-95.

2. Install two (2) coats of Polyguard® Stretch Flex at a rate of 27 sq. ft. per gallon to achieve a 60-mil application over the crack.

Horizontal to Vertical concrete transitions, install 1/2-inch tooled cove-bead using Polyguard® Detail Sealant PW™.

Structural concrete must be allowed to cure a minimum of seven (7) days. For lightweight structural concrete, the minimum is fourteen (14) days.

Wood Decking:

Approved fasteners that meet the design criteria must be inspected and flush with surface. Recessed fasteners can be addressed with Detail Sealant PW™ prior to the application of fluid-applied membrane.

Treat all seams, gaps, voids, and plane transitions with Detail Sealant PW prior to application of fluid-applied membrane.

Base Coat

If LM-85 SSL is selected for use as the base coat, mix it per the instructions located on the product container. Apply LM-85 SSL to a cleaned, dust free surface. Apply by notched or flat squeegee. Apply LM-85 SSL at a rate of 26 sq. ft. per gallon to achieve a 60-mil application in the field. Allow to dry per manufacturer's directions, up to 2 to 4 hours, depending on temperature and humidity.

If Stretch Flex is selected for use as a base coat, mix it per the instructions located on the product container. Apply Polyguard® Stretch Flex to a cleaned, dust free surface. Apply by spray or roll. Apply two (2) 60 mils wet coats of Stretch Flex at a rate of 27 sq. ft. per gallon per coat to achieve a 60-mil dry application in the field. Apply Stretch Flex on vertical surfaces to the height of the designed flashing (minimum of 6-inches and two (2) 60-mil wet applications to achieve 60 mils dry total on vertical surfaces). Allow each coat to dry per manufacturer's directions, up to 2 to 4 hours between applications, depending on temperature and humidity.

It is best to apply the selected base coat when the temperature and exposure to the sun are falling. If blisters form in the base coat, cut out and remove the blisters and then infill the exposed area with matching material.

Membrane

Transition membrane from horizontal to vertical shall be treated with a minimum 12-inch strip (6-inches onto horizontal surface and 6-inches onto vertical surface) of Polyguard® Detail Tape, 650 Membrane, PRM™. If metal flashing is utilized in the system, apply membrane over the metal flashing extending 2-inches beyond the flashing onto the substrate, both horizontally and vertically. (Perimeter detailing and flashing can be installed prior to or after field membrane, relative to the sequencing of the project).

If the field sheet membrane is applied during the same day as the membrane, and the membrane surface has remained dry and free of jobsite dust, then priming is not required over the membrane.

When a membrane surface becomes contaminated with water or jobsite dust, or if the Stretch Flex is exposed to the elements greater than 24 hours prior to the field sheet membrane application, then apply a primer coat of Polyguard® 650 LT Liquid Adhesive or California Sealant at a rate of 400–500 SF/gallon and allow the Adhesive / Sealant to dry before covering with the field sheet membrane. Apply field sheet membrane to the primed surface starting at the low point and working to the high point in a shingling technique for maximum drainage.

For dual core LM-85 SSL applications, the sheet membrane side laps for sloped decks should be 2-1/2 inches minimum and staggered end laps should be 6-inches minimum, with all cut edges receiving a minimum 30-mil tooled bead of Detail Sealant PW™ or LM-95 Liquid Membrane. Side laps for zero-sloped decks should be 9-inches minimum and staggered end laps should be 9-inches minimum with all end laps receiving a minimum 30-mil tooled bead of Detail Sealant PW or LM-95 Liquid Membrane.

For dual core Stretch Flex applications, the membrane side laps for sloped decks should be 2-1/2 inches minimum and staggered end laps should be 6-inches minimum, with all cut edges receiving a minimum 30-mil tooled bead of Detail Sealant PW. Side laps for zero-sloped decks should be 9-inches minimum and staggered end laps should be 9-inches minimum with all end laps receiving a minimum 30-mil tooled bead of Detail Sealant PW.

Firmly roll the entire field sheet membrane with a minimum 75 lb. linoleum roller immediately after application. This will ensure proper adhesion and minimize air pockets between the substrate and membrane.

Any penetrations, posts, or projections added after installation of the Stretch Flex and field sheet membrane shall be sealed with a minimum 90 mils of Polyguard® Detail Sealant PW™ 6-inches onto the field sheet membrane and 3 inches onto penetrating item.

On LM-85 SSL dual core drain applications seal joint between drain body and substrate with LM-95.

On Stretch Flex dual core drain applications seal joint between drain body and substrate with Polyguard Detail Sealant PW.

Membrane turned up on walls shall be terminated. Firmly press the terminated edge with a hand roller and protect the edge with a minimum 30-mil tooled bead of Detail Sealant PW.

Inadequately lapped seams and damaged areas shall be patched with additional sheet membrane. Extend patch at least 6 inches in all directions beyond the defect, then seal all patch edges by one of the following methods:

1. For LM-85 SSL - with a minimum 30-mil tooled bead of Detail Sealant PW or LM-95 Liquid Membrane.
2. For Stretch Flex - with a minimum 30-mil tooled bead of Detail Sealant PW.

Slit all "fishmouths," overlap the pieces, place patch over area and roll in place. Air blisters are typically caused by exposure and heat; this condition will subside as the sun no longer heats the membrane. This condition does not need attention unless blisters are large or excessive, softball size, and do not dissipate. Puncture large air blisters, expel the air, prime and cover with patch. Extend the patch material at a minimum of 6 inches in all directions beyond the repair area, then seal the patch edges by one of the following methods:

1. For LM-85 SSL – with a minimum 30-mil tooled bead of Detail Sealant PW or LM-95 Liquid Membrane.
2. For Stretch Flex – with a minimum 30-mil tooled bead of Detail Sealant PW.

Protection During Construction

Protect the base coat and sheet membrane surfaces, and sealant applications, from damage until the Polyflow® BD or Polyflow® 18 layer has been installed. Isolate completed work areas from construction and foot and equipment traffic. Restrict foot and equipment traffic onto completed work with temporary walkways of protection material, Polyflow BD, or Polyflow 18.

Completed System

Perform related ASTM D5957, Flood Testing Horizontal Waterproofing Installations, 24-hour hose soaker testing, or Electronic Leak Detection prior to installing the permanent layer of Polyflow BD or Polyflow 18. Allow 48 hours after installation of the sheet layer and accessory sealant materials before starting one of the above-mentioned tests.

For applications involving a concrete topping slab or geo-fill, the waterproofing system is considered complete after the detailed field of waterproofing has been covered by a layer of Polyflow 18.

SAFETY

SDS documents for all Polyguard products can be obtained at our website www.polyguard.com. Call Polyguard Products, Inc. at 214.515.5000 with questions.

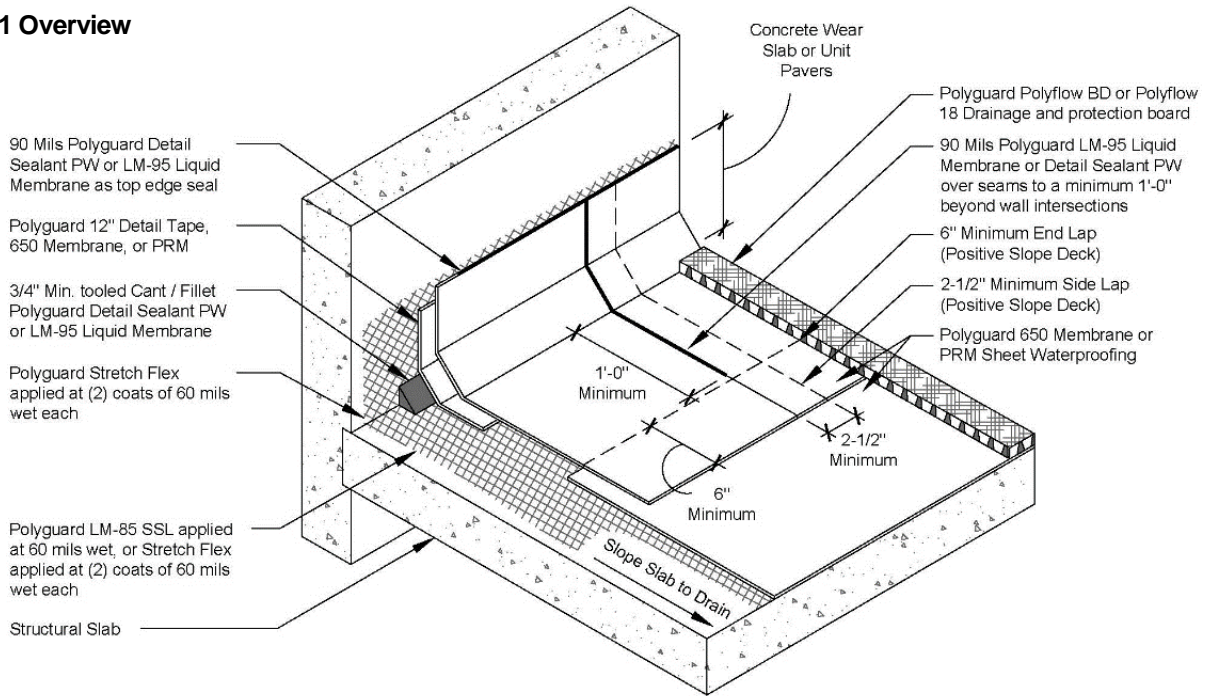
WARRANTY

We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product are beyond our control; such as weather, workmanship, equipment utilized and prior condition of the substrate. We will replace at no charge product proved to be defective within twelve (12) months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided. A five (5) year material or system warranty may be available upon request. Contact Polyguard Products, Inc. for further details.

TECHNICAL SERVICES

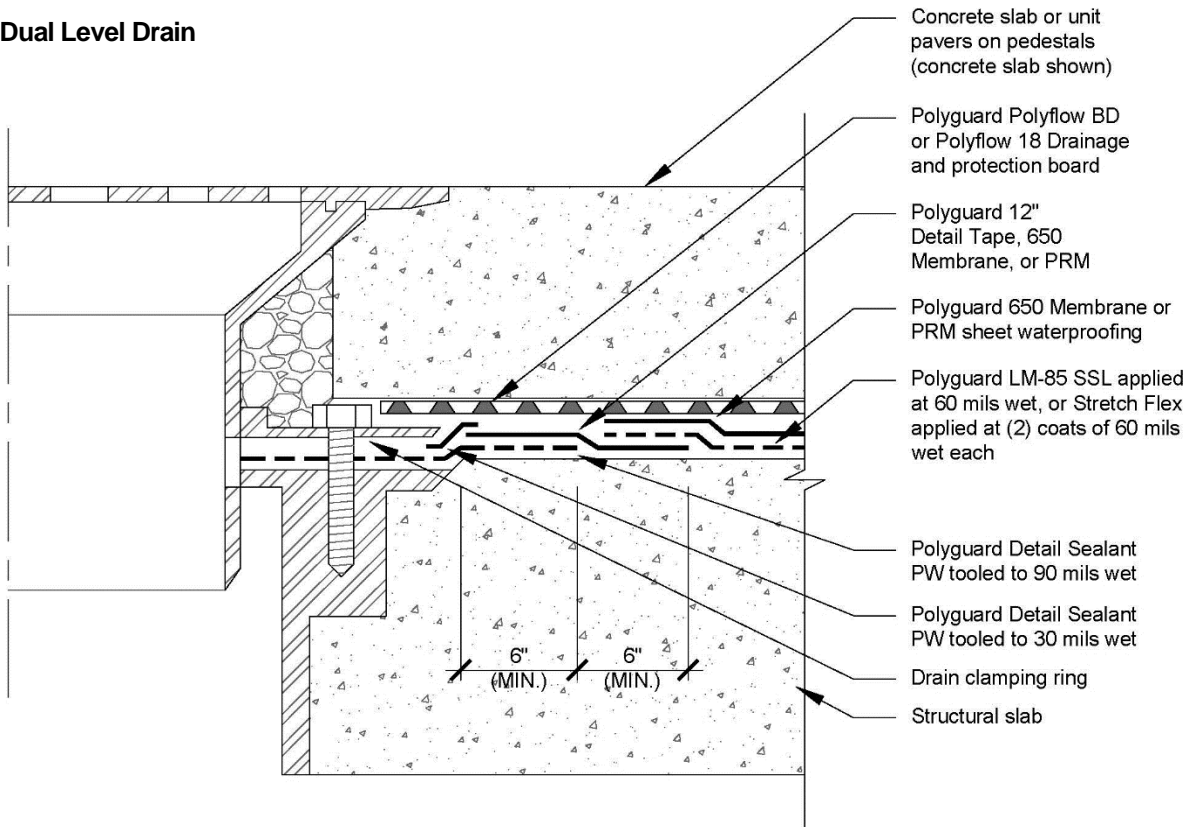
Technical assistance, information and Polyguard's products are available through a nationwide network of distributors and architectural representatives, or contact Polyguard Products, Inc.
P.O. Box 755, Ennis, TX 75120-0755
Sales: (615) 217-6061 • Tech Support: (214) 515-5000
Email: archtech@polyguard.com
Website: www.polyguard.com

DCH-1 Overview



Dual Core Horizontal (DCH) Waterproofing

DCH-2 Dual Level Drain



Dual Core Horizontal (DCH) Waterproofing - Dual Level Drain