Henry®

BUILDING ENVELOPE SYSTEMS®

WATERPROOFING SYSTEMS

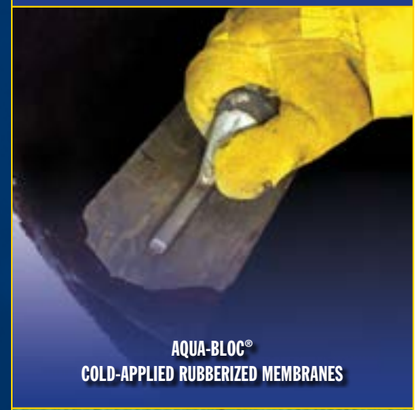
A comprehensive line of horizontal and vertical waterproofing membrane systems, waterstops, drainage composites and accessories.

ROOFING | WATERPROOFING | AIR BARRIERS

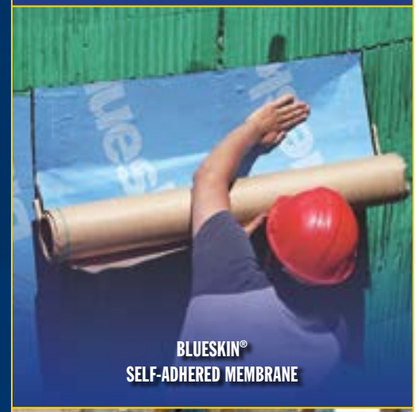
THE WATER STOPS HERE.

> **90% OF ALL WATER INTRUSION PROBLEMS OCCUR WITHIN 1% OF THE TOTAL BUILDING OR STRUCTURE'S EXTERIOR SURFACE AREA.**
>
> *— CONSTRUCTION WATERPROOFING HANDBOOK*

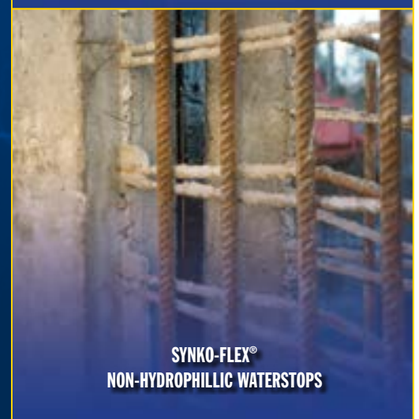
ELASTO-SEAL® 790-11
HOT RUBBERIZED ASPHALT



AQUA-BLOC®
COLD-APPLIED RUBBERIZED MEMBRANES



BLUESKIN®
SELF-ADHERED MEMBRANE



SYNKO-FLEX®
NON-HYDROPHILLIC WATERSTOPS

THE ASSAULT OF WATER, WEATHER AND TIME CHALLENGES THE WATERPROOFING SYSTEM

WATER UNDER PRESSURE WILL FIND A WAY IN.

Water at rest exerts pressure. This is called "hydrostatic pressure". The force is a function of the height of the water. When it rains, and the water table rises, pressure increases and groundwater is literally pushed into the foundation in all directions, spreading into naturally occurring cracks and crevices, deteriorating the foundation, and eventually reaching the interior as seepage or dampness.

HENRY EXCELS UNDER PRESSURE

To withstand hydrostatic pressure, a waterproofing system must be a complete integrated system to start — and remain seamless over decades. That demands membranes of exceptional durability, elasticity through freeze and thaw, and resistance to naturally occurring and deposited chemicals and soil acidity.

Henry Waterproofing Systems have excelled for over 40 years under such demands: See our references. Talk to a Henry Building Science Specialist. The more you know, the more confident you'll be.

WHAT IS WATERPROOFING?

Waterproofing is the treatment of a surface to prevent the passage of liquid water under hydrostatic pressure.

WHAT IS DAMPPROOFING?

Dampproofing is the treatment of a surface to retard the absorption of moisture. Dampproofing won't stop water under hydrostatic pressure.

WHAT IS HYDROSTATIC PRESSURE?

Hydrostatic pressure is the force exerted at a given depth by the weight of the overlying column of water. This pressure acts with equal magnitude in all directions.

Henry Waterproofing Systems are the choice for such landmark buildings as the Lincoln Memorial (pictured here), the White House, and the Pentagon.

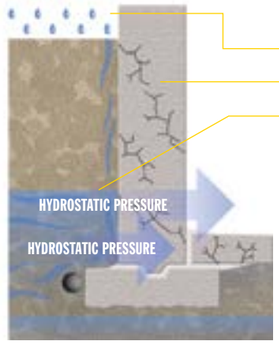
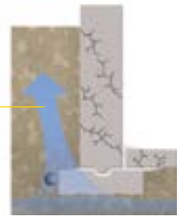


ILLUSTRATION OF HYDROSTATIC PRESSURE:

- Rain and building run-off
- Cracks and voids
- High water table
- Normal water table

CAPILLARY PRESSURE:

The movement of water upwards into unsaturated (as it dries) soil above.



THE 790-11 HOT RUBBERIZED ASPHALT SYSTEM: PROOF OF PERFORMANCE IS IN THE TEST OF TIME

APPLICATIONS: Terrace Decks • Tunnels • Split Slabs • Parking Decks • Highway Bridge Decks • Plaza Decks • Planters • Protected Roof Membrane Assemblies • Green Roofs

790-11 BENEFITS:

- Monolithic (joint free)
- Immediate cure: no job delay
- Fully adhered (no lateral water migration)
- Self-seals minor punctures
- Can be applied at below-freezing temperatures
- Bridges non-moving cracks
- Remains fully elastomeric through hot and cold cycles

THE INDUSTRY STANDARD

Since 1967, the Industry Standard 790-11 assembly has maintained its integrity across millions of square feet of high traffic applications including tunnels, parking garages, fountains, plazas and decking.

- Filter fabric protects the assembly from infiltration of dirt particles
- Insulation (optional): extruded polystyrene insulation for high compressive strength and moisture resistance for below-grade type applications
- Henry DB Drainage Composite: facilitates drainage of the waterproofing system
- Protection board: our *modified*PLUS® asphaltic membrane separates and protects
- 790-11 two-ply assembly:
  - Two layers applied for total thickness of 215 mils
  - Reinforced with Polyester Fabric
- Adhesive: 930-18 high-tack adhesive greatly enhances surface bond

THE MOST DEMANDING PROJECTS HAVE ALWAYS DEMANDED HENRY 790-11

CHECK OUR REFERENCES: You want a company behind you with a track record you can bank on? From the American Institute of Architects Headquarters in Washington D.C., to the Oresund Tunnel linking Sweden to Denmark, the choice is Henry.

LEED CREDITS

790-11EV contains 25% post consumer recycled content in the form of reprocessed used tire rubber grade qualifying under "Recycled Content - Materials and Resources (MR) Credit 4.1" for 1 LEED Credit.

WARRANTY COVERAGE

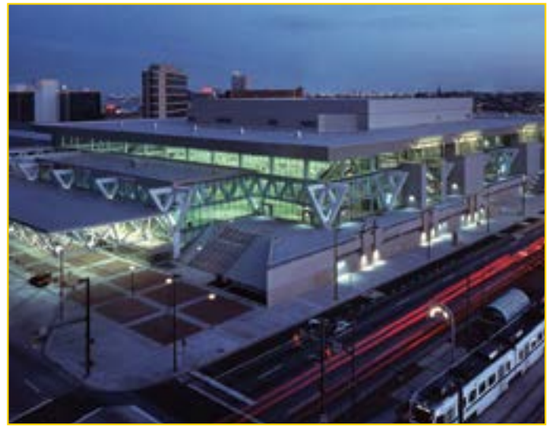
The system is installed by Henry trained and qualified contractors, with available warranty coverage of all components, "from the deck up."

CERTIFICATIONS AND APPROVALS

Our flagship 790-11 system is backed by ISO registration, UL Class A, LARR and other listings.

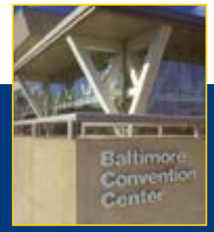
YOUR BUILDING SCIENCE SPECIALIST

Our team of Building Science Specialists can provide technical expertise and field support to every phase of design and construction, from engineers to specification writers. Call us at 1-800-486-1278.



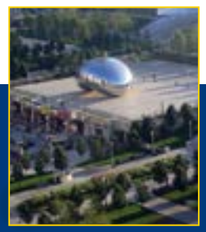
BALTIMORE CONVENTION CENTER:

More than 1 million people walk the plaza of the Baltimore Convention Center every year through freeze and thaw, 22" of snow and 44" of rain and, through it all, the Henry 790-11 performs.



MILLENNIUM PARK, CHICAGO, IL:

Henry helps hide the parking structures under Chicago's sprawling 24.5 acre Millennium Park with a sophisticated Green Roof system featuring the two-ply 790-11 system plus special Henry components for Green Roofs.



AQUA-BLOC® COLD-APPLIED MEMBRANES: GOES ON ELASTIC AND STAYS ELASTIC

APPLICATIONS: Aqua-Bloc® is an elastomeric, asphalt membrane available in four grades for application to horizontal and vertical surfaces, above or below grade: Waterproofing Foundations • Tunnels • Planters • Retaining Walls • Elevator Pits • Balconies • Excellent For Repairing Hot Rubberized Asphalt Membranes.

AQUA BLOC® WB *(WATER-BASED)*

SPECIAL USES:
- Approved for use on damp or green concrete
- Excellent for waterproofing ICF (Insulated Concrete Forms) foundation walls

HOW TO APPLY
- Trowel, brush or spray
- Can be applied in one coat or in multiple coats with reinforcing fabric

ADVANTAGES
- Exceeds the requirements of CAN/CGSB 37.2
- Low VOC
- Low odor

AQUA BLOC® SB *(SOLVENT-BASED)*

SPECIAL USES:
- Ideal for cold weather applications
- Excellent to repair damaged hot rubberized membranes

HOW TO APPLY
- Trowel or spray applied
- Can be applied in a single or reinforced application

ADVANTAGES
- Heavy-duty seamless, rubberized, impervious membrane
- Excellent adhesion to most construction surfaces

AQUA BLOC® 2P *(TWO-COMPONENT)*

SPECIAL USES:
- Levels, repairs and waterproofs rough and uneven concrete surfaces
- Leveling coat for Blueskin® WP200 or DuraTac self-adhering membranes
- Internal setting: may be used between impervious surfaces

HOW TO APPLY
- Squeegee or trowel applied

ADVANTAGES
- 100% Solids: solvent and odor free
- Sets very rapidly and develops a strong bond
- Self-leveling formulation

AQUA BLOC® QS *(QUICK-SETTING)*

SPECIAL USES:
- Ideal for quick backfilling requirements
- Specifically designed for vertical applications

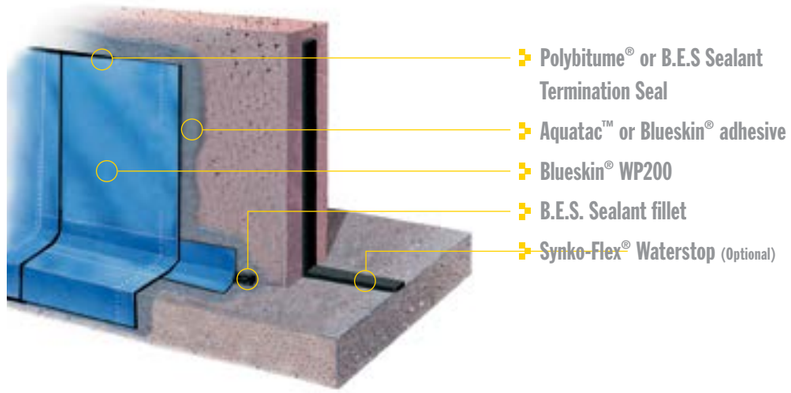
HOW TO APPLY
- Spray applied with setting agent

ADVANTAGES
- Immediate set through upon application
- Complies with and exceeds the requirements of CAN/CGSB 37.1M
- Low VOCs

BLUESKIN® WP SELF-ADHERED MEMBRANE: EASY TO HANDLE, SIMPLE TO APPLY

APPLICATIONS: Blueskin® WP is a self-adhering, 60 mils thick SBS rubberized membrane ideal for vertical and horizontal waterproofing applications such as foundation walls, planters, retaining walls, terraces and tunnels.

ADVANTAGES:
- Easy to install — no special equipment, heat or flame required
- No curing time required — membrane can be backfilled immediately
- Consistent thickness — no thin spots
- Spans cracks
- Edge bead technology at side laps
- Fully adheres — no lateral water migration



HOW TO APPLY

EASY INSTALLATION:
Blueskin® is put in place as the silicone-treated release paper is removed.

APPLY PRESSURE BY ROLLER:
Pressure is applied at overlap and field of membrane to ensure maximum adhesion.

HENRY FULLY INTEGRATED SYSTEMS
- 790-11 waterproofing membrane on split-slab construction
- Air-Bloc 33 air barrier membrane on wall of Auditorium
- Blueskin® WP200 waterproofing on foundation walls of new construction

CAPITOL VISITORS CENTER
Henry integrated waterproofing systems are the choice of some of the world's best designed buildings like this one: the three-level, underground complex is the biggest expansion in the Capitol's history.

Architect: RTKL Associates, Inc.

SYNKO-FLEX® THE LABOR SAVING ALTERNATIVE TO CONVENTIONAL WATERSTOPS

APPLICATIONS: Synko-Flex® is a preformed plastic adhesive waterstop for poured-in-place concrete applications: Secondary Containment Structures • Tunnels • Underground Parking Garages • Swimming Pools • Concrete-Lined Storm Drainage & Irrigation Channels • Potable Water Reserves • Seals Embedded Steel, PVC or HDPE Pipe Penetrations

NSF 61 approved: will not leach or mix with potable water.

HOW IT WORKS:

Synko-Flex® bonds to cured concrete surfaces and fuses with fresh concrete during the hydration and curing process to achieve a watertight seal.

ADVANTAGES:

- Does not rely on swelling to be watertight
- Unaffected by rain, groundwater, cyclical wetting or drying
- No risk of 'blow-outs' in joints
- No adhesive required

ADVANTAGES OVER PVC WATERSTOPS:

- Tremendous cost and labor savings
- No additional mounting or fixing tools are necessary. No splicing or welding
- Never cracks, shrinks or dries out

SEALS PENETRATION
Bonds to steel, PVC, HDPE penetrations through concrete walls or flow slabs.

UNAFFECTED BY RAIN
Synko-Flex® is unaffected by water or rain at the job site.

ORESUND TUNNEL
Synko-Flex® helps maintain the watertight integrity of the longest immersed concrete tunnel in Europe.

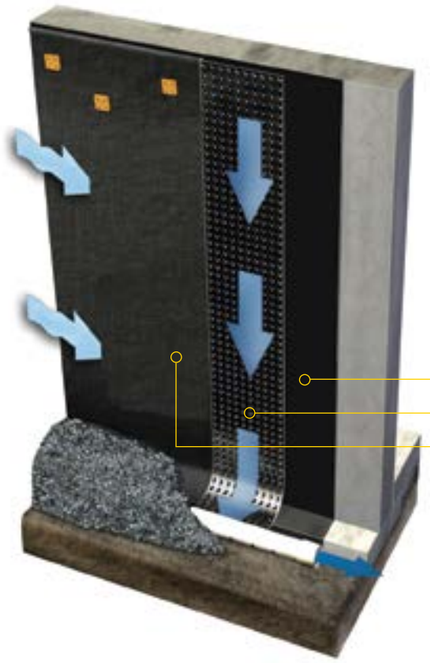
VARIOUS SEA WORLD ATTRACTIONS
Synko-Flex® is NSF 61 approved for potable water, so you'll find it in some of the world's most famous water attractions, like Sea World.

You'll also find it in the deep water tanks of the Neutral Buoyancy Laboratory at NASA in Houston, Texas

HOW IT COMES:
Supplied in 1" x 3' linear strips protected with two silicone-treated wrappers.

HENRY DRAINAGE COMPOSITES: A BETTER ENGINEERED SOLUTION FOR MANAGING THE FLOW OF WATER

APPLICATIONS: Henry Drainage Composites are available for: Foundation Walls • Plaza Decks • Split Slabs • Retaining Walls • Planters • IRMA Roof • Green Roofs • Tunnels • Lagging Wall Drainage



REDUCES HYDROSTATIC PRESSURE WHILE PROTECTING THE MEMBRANE

Henry Drainage Composites provide an air gap that collects moisture and water and channels it away from the structure both vertically and horizontally, reducing hydrostatic pressure and capillary pressure while protecting the membrane.

- Henry waterproofing membrane
- Tear-resistant polymeric core
- Geotextile fabric fully bonded to the dimples for lasting durability

ADVANTAGES:

- Reduces hydrostatic and capillary pressure
- Diverts water away from structures
- Protects the membrane during back-fill operations
- Far more efficient and effective in horizontal applications than gravel

SPECIAL FEATURES:

- Excellent compressive strength
- Ultra-resistant to chemicals, impact, and cracks
- High flow capacity
- Composites engineered for a range of applications and demands

"Nearly 66% of all Condominium Corporations have Experienced Damages Caused by Water Infiltration."

— Zabas, 1983. Brand, Ron. Architectural Details for Insulated Buildings, 1990

LAGGING WALLS
Lagging walls can experience extreme hydrostatic pressure. Henry DB500/520 is the choice, delivering high compressive strength at all depths and high-water flow.

PARKING DECKS
Horizontal applications such as parking decks call for Henry DB350; High-flow capacity and excellent compressive strength under heavy vehicle loading.

GOVERNMENTAL APPLICATIONS
Henry DB650 meets the demands of such governmental projects as highway drainage systems.

SHEET-APPLIED MEMBRANES | FLUID - APPLIED MEMBRANES | WATERSTOPS

PRODUCTS	BLUESKIN® WP200	BLUESKIN® WP100	*modified* PLUS®	AQUA-BLOC® WB	AQUA-BLOC® SB	AQUA-BLOC® QS	AQUA-BLOC® 2P	ELASTO-SEAL® CM100	ELASTO-SEAL® 790-11	SYNKO-FLEX®	SYNKO-FLEX® FR	HYDRO-FLEX®
TYPE	Self-adhered SBS rubberized membrane	Self-adhered SBS rubberized membrane	Adhered or torch applied SBS modified membrane	Elastomeric bitumen emulsion (water-based)	Elastomeric bitumen (solvent-based)	Rubberized asphalt emulsion (quick-setting)	100% solids, vulcanized membrane (two-component)	Moisture cure modified asphalt	Hot applied rubberized asphalt	Non-swelling, preformed joint sealant	Non-swelling polypropylene resin preformed joint sealant	Hydrophilic, expanding butyl rubber
USE	Premium waterproofing membrane for foundation walls, tunnels, planters, retaining walls	Basic waterproofing membrane for foundation walls, planters, retaining wall and flooring applications	Waterproofing membrane for foundations, tunnels, plaza decks, under slab or podium deck applications Excellent flashing sheet for fluid applied membranes	Waterproofing membrane for foundations walls, balconies, planters and other structures in both vertical and horizontal applications	Waterproofing membrane for foundations walls, balconies, planters and other structures in both vertical and horizontal applications. Repair damaged hot rubberized membranes	Waterproofing membrane for foundation wall, retaining wall and geotechnical applications	Waterproof horizontal decks, balconies and other structures Leveling coat over rough substrates for sheet applied membranes	Waterproofing and IRMA roofing membrane for plaza decks, tunnels, parking garages, split slabs applications	Waterproofing and IRMA roofing membrane for plaza decks, tunnels, parking garages, split slabs and green roof applications	Provide a watertight seal of cold joints in a wide range of concrete structure including foundation walls, containment structures, tunnels, parking garage, wastewater treatment facilities, pools, potable water reservoirs	Provide a watertight seal of cold joints in a wide range of concrete structures where there is a good potential for hydrocarbon liquids or high chemical concentrations	Provide a watertight seal of cold joints in a wide range of concrete structure including foundation walls, containment structures, tunnels, parking garage, wastewater treatment facilities, pools
SELECTION FEATURES	• 60 mils thick membrane • Edge bead technology at side laps • Strong HDPE surface film • Regular and low temperature grades • Factory-controlled thickness	• 60 mils thick membrane • Factory controlled thickness • Easy to install • No special equipment • No heat or flame required	• Can be applied at low temperature • Excellent tear and puncture resistance • Spans gaps between dissimilar substrates	• Can be applied over damp or green concrete • Low odor • Low VOC content • Single or multicoat reinforced applications • Ideal for ICF foundations	• Top quality grade • Can be applied in cold temperatures • Highly flexible membrane • Excellent adhesion to most surfaces	• Immediate set through when used with setting agent • Low VOC • Can be backfilled over quickly	• Internally set within an hour • 100% solids Self-leveling formulation • Fills and smooth rough surfaces • Can be used on residual asphalt or coal tar surfaces	• Solvent free • Can be applied over damp or green concrete • No odors or VOC • Single or high build reinforced applications • Easily applied by roller or squeegee	• Highly flexible over wide range of temperatures • 100% solid, cools on contact • 2 ply high-build reinforced applications • Self-sealing • Qualified contractor programs	• Bonds to fresh and cured concrete • Unaffected by rain or wet conditions • Easy to install, no heat welding of splices • No risk of “blow outs” • Safe for use in potable water structures	• Can be exposed to hydrocarbon liquids • Excellent chemical resistance • Bonds to fresh and cured concrete • Unaffected by rain or wet conditions • No risk of “blow outs”	• Swells and expands into concrete surfaces • Easy to install, no heat welding of splices • Excellent chemical resistance
COMPLIANCE	CCMC listed		CGSB-37-GP-56M	CAN/CGSB-37.2	CAN/CGSB-37-58-M86, CAN/CGSB-37.16-M89	CAN/CGSB-37.1-M89	ASTM C-836	ASTM C-836	CAN/CGSB-37.50-M89, UL Class A, and LARR	Federal Specification SSS-210, ANSI/NSF 61	Federal Specifications SSS-210	Federal Specification SSS-210
COVERAGE	3ft x 66.7ft / roll (186ft² / roll, net coverage)	3ft x 66.7ft / roll (186ft² / roll, net coverage)	98ft² or 148ft² / 36in roll net coverage	20ft² / gal @ 80 mils wet	6 gal / 100ft² @ 90 mils wet	20ft² / gal @ 55 mils dry	80ft² / Unit (5 Gal)	Single or high-build systems available, see data sheet	1.4lbs /ft² @ 215 mils	1”x 3’ strips / 35 strips per box	1.125” x 0.5” x 16.8’ long coils / 6 coils per box	1.125” x 0.5” x 16.8’ long coils / 6 coils per box
COLOR	Blue	Blue	Black	Black	Black	Black	Black	Black	Black	Black	Blue	Black
APP. TEMP	23°F (-4°C) minimum	40°F (5°C) minimum	No limit	40°F (5°C) minimum	Condition material to room temperature before application	40°F (5°C) minimum	Condition material to room temperature before application	32°F (0°C) minimum	No limit	No limit	No limit	No limit
APPLICATION METHOD												
BRUSH				Yes				Yes				
TROWEL				Yes	Yes			Yes				
SQUEEGEE							Yes	Yes	Yes			
SPRAY				Yes	Yes	Yes						
SELF-ADHERED	Yes	Yes	Yes							Yes	Yes	Yes
THERMOFUSIBLE			Yes									

This chart is to be used as guide only. For the most accurate and complete information on Henry products, please refer to our technical data sheets at www.henry.com

DRAINAGE COMPOSITES

PRODUCTS	DB 200 / 220	DB350	DB500 / 520	DB650
USE	Vertical or horizontal applications at shallow depth. DB220 has additional polymeric film at backside for use with softer waterproofing membranes	Horizontal applications requiring high compressive strength, moderate flow, and the strength and filtration properties of a woven geotextile	Vertical applications requiring high compressive strength and high flow capacity. DB520 has additional polymeric film at backside for use with softer waterproofing membranes	Horizontal applications requiring high compressive strength and high flow capacity with the strength and filtration properties of a woven geotextile
APPLICATIONS	Foundation walls, planters, retaining walls, podium decks, IRMA roofs and green roofs	Under topping slabs and split slab applications	Foundation walls, retaining walls and blindside waterproofing systems	Under topping slabs and split slab applications
THICKNESS	1/2 inch	1/2 inch	7/16 inch	7/16 inch
COMPRESSIVE STRENGTH	10,800 lbs / ft^2	30,000 lbs / ft^2	15,000 lbs / ft^2	21,000 lbs / ft^2
FLOW RATE	50 gpm / ft^2	100 gpm / ft^2	150 gpm / ft^2	100 gpm / ft^2
FLOW RATE/ UNIT WIDTH	9 gpm / ft	9 gpm / ft	16 gpm / ft	18 gpm / ft

ACCESSORIES

PRODUCTS		AQUA-BLOC® WB	AQUA-BLOC® SB	AQUA-BLOC® QS	AQUA-BLOC® 2P	ELASTO-SEAL® CM	ELASTO-SEAL® 790-11	BLUESKIN® WP200 OR WP100	*modified*PLUS®
MEMBRANES FOR FLASHINGS. REINFORCEMENT, CRACK & JOINT TREATMENT									
POLYFAB	Nonwoven polyester mat	Yes	Yes		Yes	Yes	Yes		
NEOFLASH	Uncured neoprene sheet		Yes		Yes	Yes	Yes		Yes
BLUESKIN® WP200	Self-adhered SBS modified sheet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
*modified*PLUS® NP180	SBS modifed bitumen sheet					Yes	Yes		Yes
PRIMERS & ADHESIVES									
910-01	Penetrating asphalt cutback	Yes	Yes		Yes	Yes	Yes		
930-18	Synthetic rubber solvent type						Yes		Yes
AQUATAC™ PRIMER	Polymer emulsion							Yes	
NEOFLASH ADHESIVE	Pressure sensitive contact adhesive				Yes	Yes	Yes		
BLUESKIN® ADHESIVE	Rubber resin solvent type							Yes	
SEALANTS & MASTICS									
POLYBITUME® 570-05	Polymer modified compound		Yes		Yes			Yes	Yes
925 B.E.S SEALANT	Moisture cure, medium modulus sealant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Need technical assistance? Call us at 800-486-1278 or visit us at www.henry.com.

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