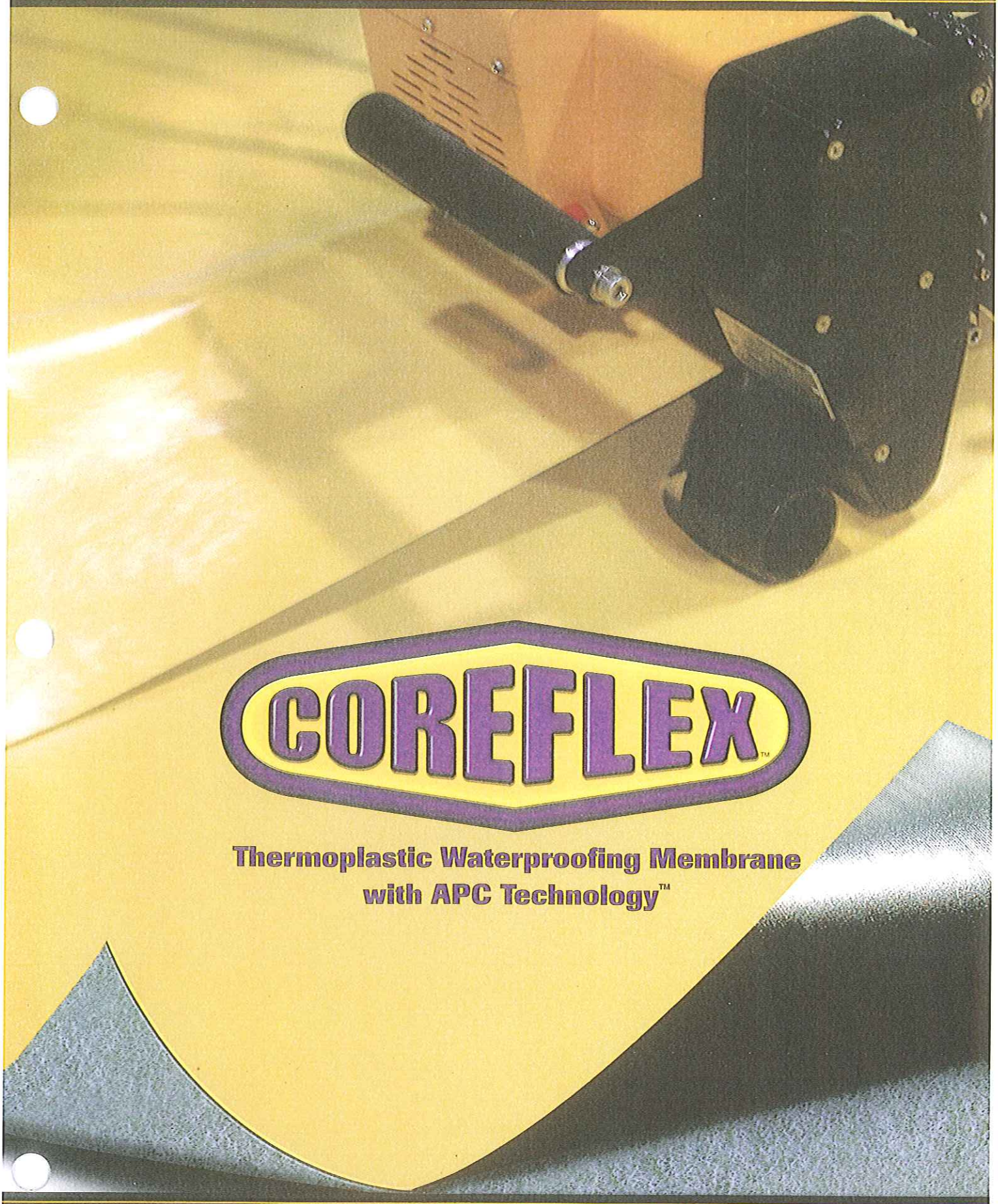
COLLOID ENVIRONMENTAL TECHNOLOGIES COMPANY



# COREFLEX™

**Thermoplastic Waterproofing Membrane with APC Technology™**

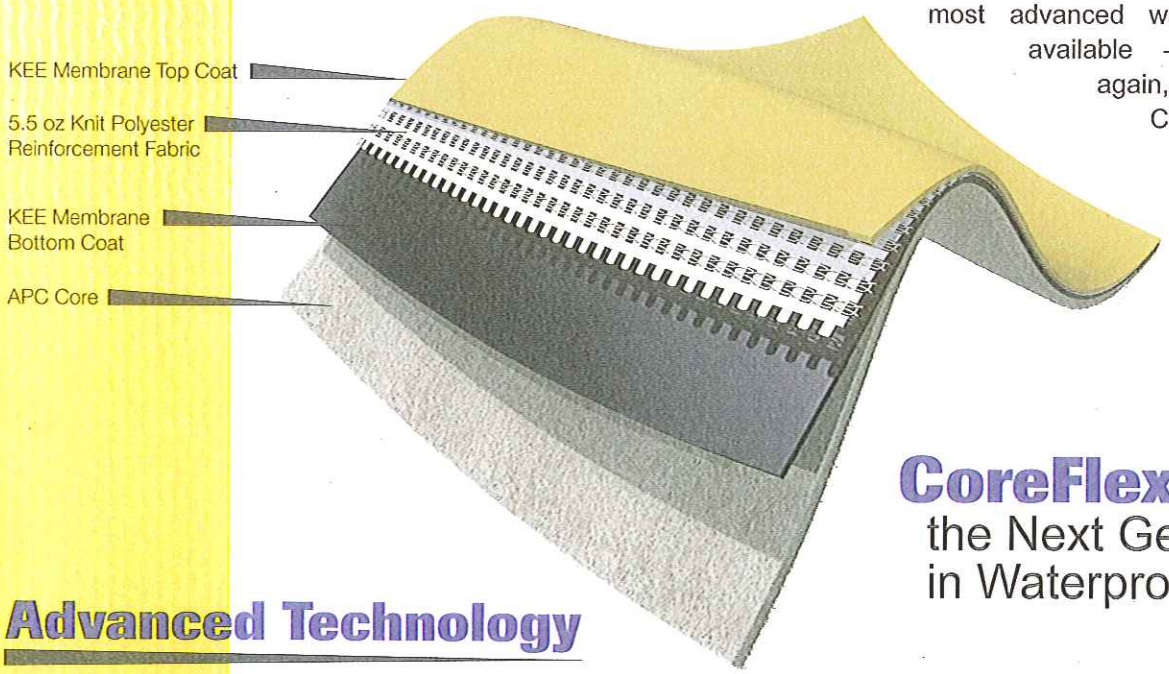
CETCO®
BUILDING MATERIALS GROUP
Quality from the Ground Up™

# COREFLEX

## ADVANCED TECHNOLOGY SUPERIOR PERFORMANCE

With more than 45 years of experience, CETCO has earned it's reputation as a global leader and innovator in the waterproofing industry. Our waterproofing systems are widely recognized for the highest standards in quality and reliability, with unparallelled water-barrier protection. Our record of proven performance is reconfirmed daily on thousands of structures worldwide. All told we have manufactured nearly one billion square feet of waterproofing systems since 1963.

Architects, contractors, and building owners know our commitment to performance and reliability starts with quality products. Over four decades ago, CETCO pioneered the development and use of quality waterproofing systems for below-grade applications, including property-line construction. Since then we've steadily improved and developed systems to meet the tough demands of today's construction industry. CETCO has now combined state-of-the-art welded thermoplastic membrane with our Active Polymer Core (APC) Technology to provide the most advanced waterproofing system available – CoreFlex. Once again, through innovation CETCO is defining the performance of waterproofing.




## CoreFlex
the Next Generation in Waterproofing Protectio

## Advanced Technology

CoreFlex sets the industry standard for waterproofing membrane strength, durability and performance. The CoreFlex composite consists of a reinforced thermoplastic membrane integrally bonded to a proprietary Active Polymer Core (APC) Technology layer. The two barrier materials combined provide superior waterproofing protection unmatched in the industry.

The thermoplastic membrane features a 5.5 oz. polyester knit reinforcement fabric coated with a proprietary ethylene interpolymer compound, utilizing Elvaloy® KEE as the principle polymer modifier. A proprietary adhesive coating encapsulates the woven fabric, promoting a molecular bond between the fabric and the thermoplastic layers. This process not only inhibits wicking, it also provides maximum peel strength.

Using APC Technology, CoreFlex controls water ingress actively with the APC layer if the thermoplastic membrane is punctured or leaks.

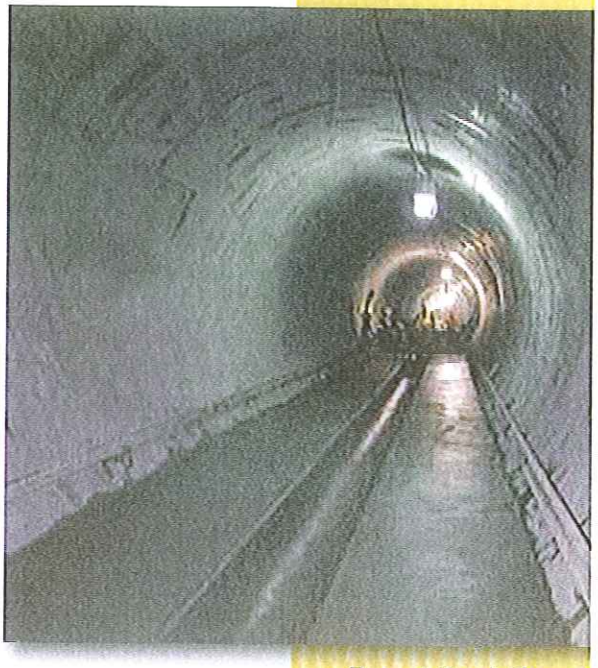
CoreFlex's thermoplastic membrane technology exhibits superior puncture resistance and dimensional stability, impressive tensile and tear strengths, while the solid phase Elvaloy KEE retains the membrane's physical attributes and performance over time. And if that isn't enough, the APC Technology activates to assure the waterproofing protection.

# Applications

From tunnels to foundations to greenroofs, there isn't a better waterproofing membrane than CoreFlex. Whether your project is new construction or a plaza deck remediation project, this versatile membrane system will provide the water barrier performance you expect.

## CoreFlex 45 ▼ CoreFlex 60

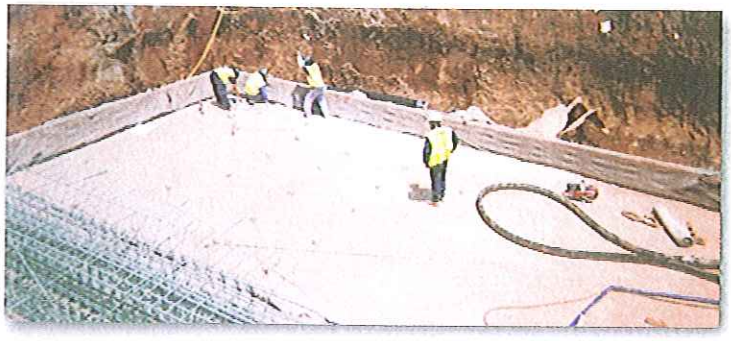
CoreFlex is available in two thermoplastic membrane thicknesses, the standard 45 mil thickness and a 60-mil thickness for additional durability and puncture resistance. Both are manufactured with the APC Technology layer integrally bonded to the back side of the thermoplastic membrane, as well as both feature the reinforcement fabric completely encapsulated between equal thicknesses of the thermoplastic compound to create a monolithic membrane that doesn't delaminate. This durable membrane construction provides benefits both during installation and in service.



Bored Rock Tunne

Greenroof

Property Line Construction



Underslab

Hydrostatic Conditions

Typical applications include foundation walls tunnels, under slab, plaza decks, greenroofs, and property line zero-lot construction, such as soldier pile and lagging. CoreFlex is ideal for demanding hydrostatic applications, as well as projects that may only be subjected to intermittent water CETCO can offer detailed solutions to the architect contractor and owner to protect the structure from water ingress. For a waterproofing system tougher than the elements, specify CoreFlex.

# Advantages

## CoreFlex Offers Many Performance Advantages

**APC Technology for Active Sealing** – Active Polymer Core Technology activates and seals water breach through the thermoplastic membrane – automatically and reliably. Unlike conventional PVC waterproofing membranes, expensive grid containment systems are not required to maintain or control water infiltration.

**Elvaloy-KEE Based Membrane** – CoreFlex's integrated polymer, Elvaloy-KEE, provides enhanced thermoplastic membrane properties and durability. The solid phase Elvaloy polymer will not migrate to the surface like low molecular weight liquid plasticizers used in conventional PVC waterproofing membranes. Thus, CoreFlex retains its physical attributes and performance over time.

**Superior Reinforcement** – Manufactured with 5.5 oz knit polyester fabric, CoreFlex exhibits superior tensile and tear strengths over fiberglass and lighter weight polyester reinforced membranes. The industries heaviest reinforcement fabric creates an internal barrier to puncture and physical damage.

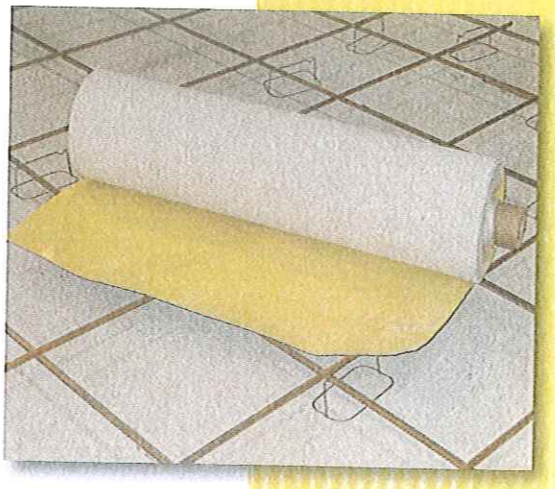
**Monolithic Membrane** – Our coating process completely embeds the reinforcement and creates a monolithic membrane that won't delaminate. This membrane construction also inhibits water-wicking along the reinforcement, thereby eliminating the need for caulking of exposed edges.

**Welded Seams** – Field seaming is accomplished by fusing the thermoplastic membrane with conventional hot air welding equipment. CoreFlex's seams are fully fused, watertight and stronger than the original membrane. The welded seams combined with superior membrane reinforcement result in a bursting strength in excess of 700psi.

**Extremely Low Permeability** – CoreFlex has an extremely low water vapor transmission that qualifies it as a Class A Vapor Retarder per ASTM E1745.

**Chemical Resistance** – The Elvaloy-KEE based thermoplastic membrane provides superior resistance to a broad array of chemicals typically found in below-grade soil conditions.

**Excellent Hydrostatic Resistance** – CoreFlex has been successfully tested to resist 231 feet (100 m) of hydrostatic pressure per ASTM D5385.



CoreFlex Roll

Automated Field Welding

Hand Detail Welding

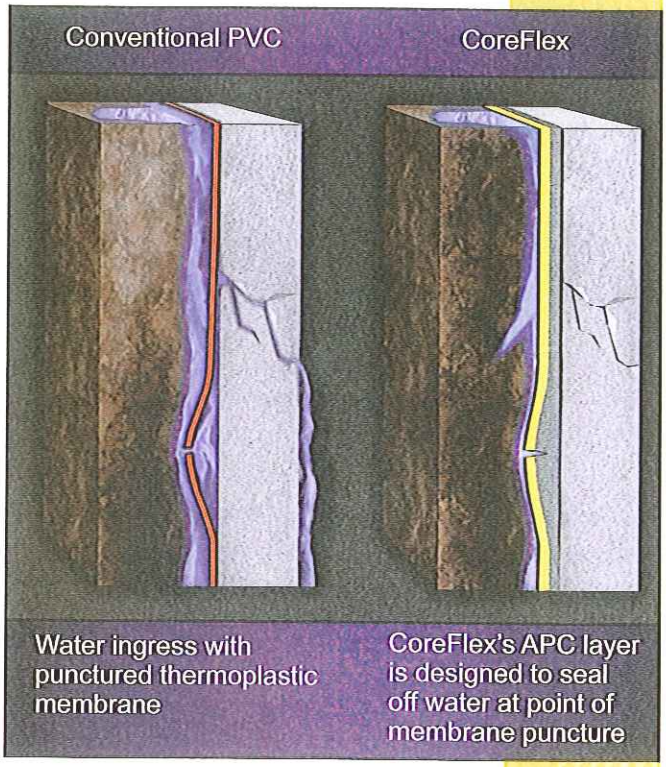
**CoreFlex** Delivers Superior Protection

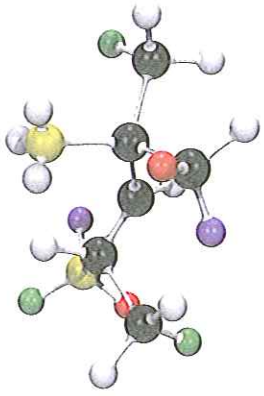
# Superior Performance

## APC Technology™

### Active Membrane Barrier Protection

The predominate problem with conventional thermoplastic waterproofing membranes is that since they are installed loose laid they require an expensive grid anchoring system to isolate water infiltration due to an installation defect or puncture. With CoreFlex, if the thermoplastic membrane is punctured, its Active Polymer Core (APC) activates with the water to seal the breach thus preventing water infiltration into the structure. Additionally, the APC geotextile layer provides a protective cushion to decrease the potential of the thermoplastic membrane to be punctured from irregular substrate surface texture.



*Elvaloy-KEE Molecule*

## Elvaloy® KEE

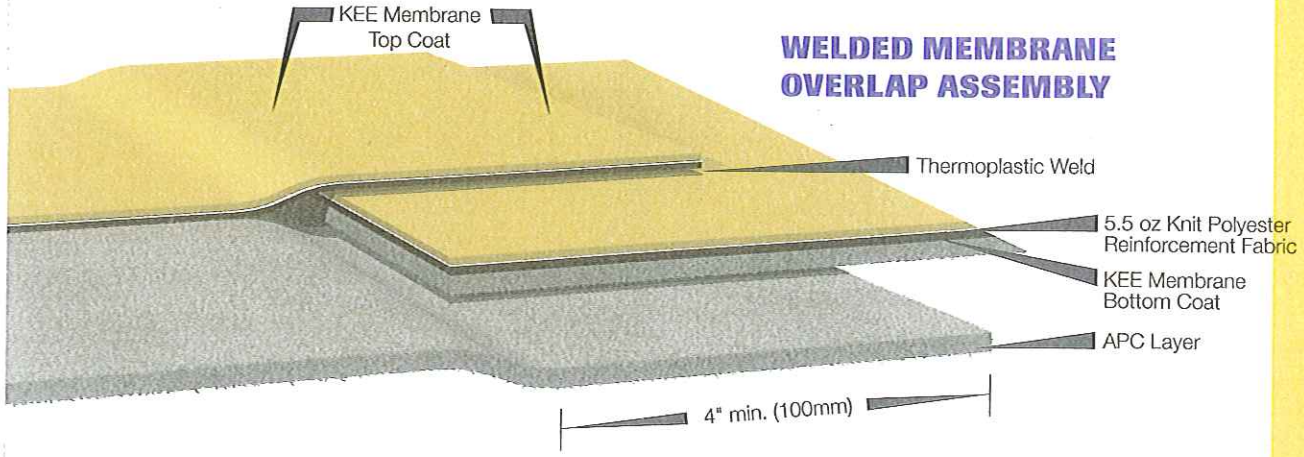
### Solves the Plasticizer Migration Issue

As for performance, our Elvaloy-based compound sets the industry standard for eve kind of resistance - hydrostatic, oil, chemical, salt, and other contaminants. With its hig molecular weight, non-migrating plasticizer, the membrane will not crack, cure, or shrir thus providing the longest lasting protection. Membranes based on Elvaloy-KEE a engineered to resist ground water contaminants typical of below-grade conditions. Plu the membrane has an extremely low water vapor transmission that qualifies it as a Clas "A" Vapor Retarder per ASTM E1745.

## High Performance Seam Assembly

### Thermoplastic Weld + Active APC Barrier Protection

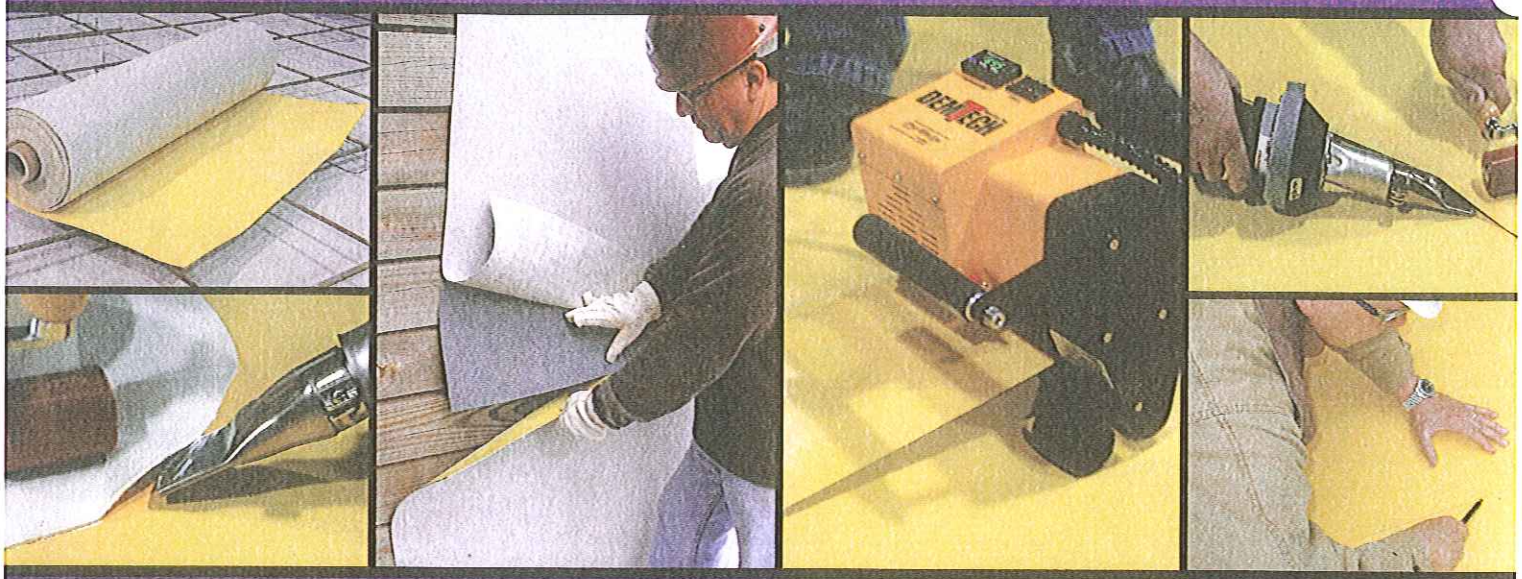
Conventional PVC membranes rely solely on welds to prevent water intrusion at the overlap seams. With CoreFlex, eac membrane overlap seam utilizes both a conventional weld and an overlap assembly of the APC Technology to assu water-tightness. This combination of passive and active barrier technologies provides enhanced seam performance ar eliminates the reliance of seam integrity strictly on installation labor.



In order to meet the challenges of today's construction techniques, CETCO continues to evolve. With our first waterproofing patent in 1942, we've looked for innovative ways to bring value and security to our customers. Decades later, we remain committed to advancing the science with new solutions and the core belief that quality must come first.

CETCO supports its products and services with HydroShield — the industry's most extensive Quality Assurance Program. It is indicative of the confidence we have in our products as well as the services and skills of our industry partners. It features design / architectural support, site specific AutoCAD details, material installation by experienced approved applicators, third party independent inspection as well as the financial security of the industry's only NO-DOLLAR-LIMIT warranty — all from a single source.

Using a qualified single source for your commercial waterproofing requirements means more — more control, more quality, more service, and the knowledge that your investment is secure with one phone call. Achieve more with building envelope solutions from CETCO.



CETCO HYDRO SHIELD WARRANTY

MAY 2007 (Supersedes All Previous Versions)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