



**Thermoplastic Waterproofing Membrane  
with APC Technology™**



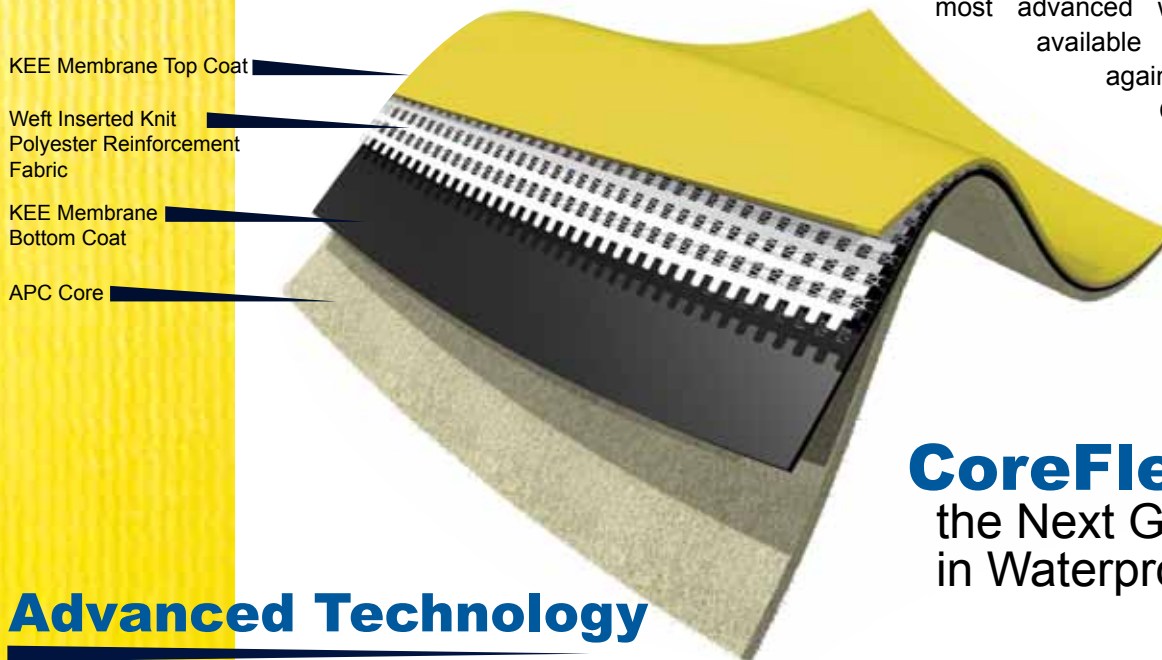
Quality from the Ground Up™



## ADVANCED TECHNOLOGY SUPERIOR PERFORMANCE

**W**ith more than 45 years of experience, CETCO has earned its 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 unparalleled 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.



## Advanced Technology

**C**oreFlex 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 by any other product.

The thermoplastic membrane features a 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 – benefits that cannot be achieved by products that rely on “strike through” adhesion between coats.

With its integrated APC Technology, CoreFlex does not have to rely on an expensive grid system to maintain or control water ingress if the thermoplastic membrane is punctured or breached. Simply the APC layer activates at the water leak and seals the breached area. Thus, the problem becomes part of the solution - automatically and reliably.

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.

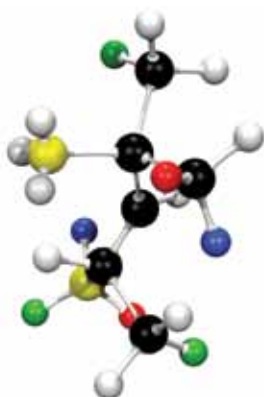
## CoreFlex the Next Generation in Waterproofing Protection

# 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.

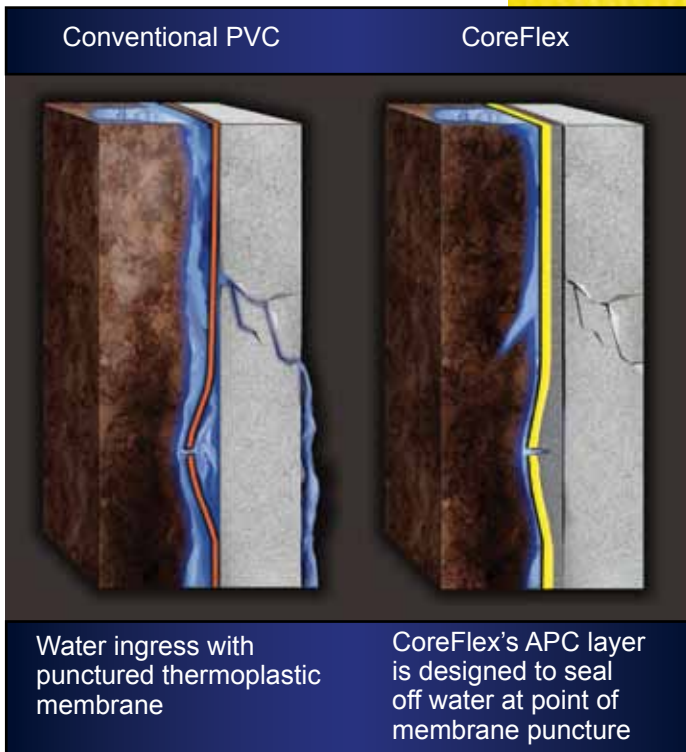


Elvaloy-KEE Molecule

## Elvaloy® KEE

### Solves the Plasticizer Migration Issue

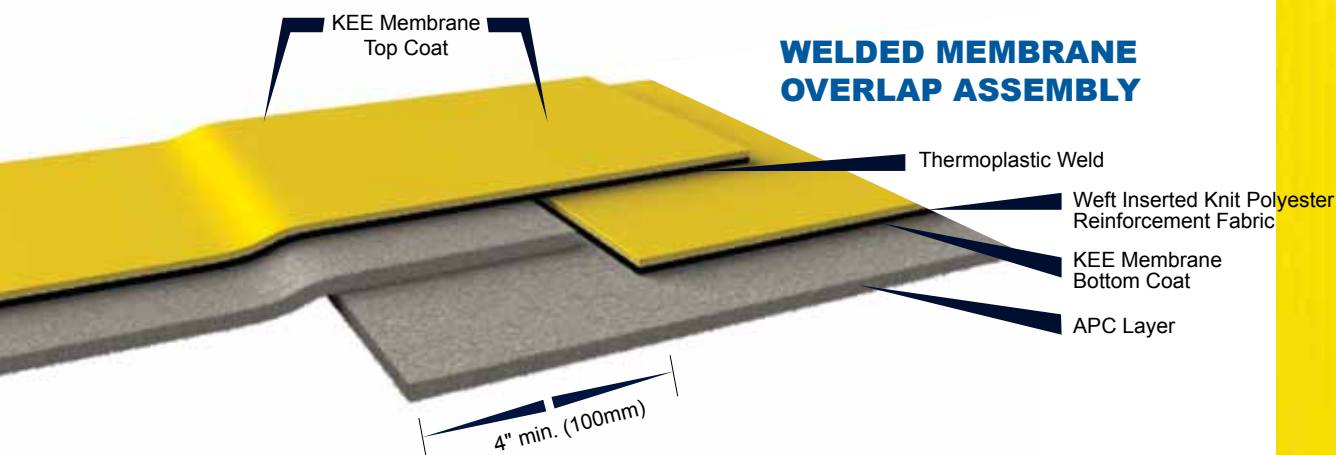
As for performance, our Elvaloy-based compound sets the industry standard for every kind of resistance - hydrostatic, oil, chemical, salt, and other contaminants. With its high molecular weight, non-migrating plasticizer, the membrane will not crack, cure, or shrink thus providing the longest lasting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



## High Performance Seam Assembly

### Thermoplastic Weld + Active APC Barrier Protection

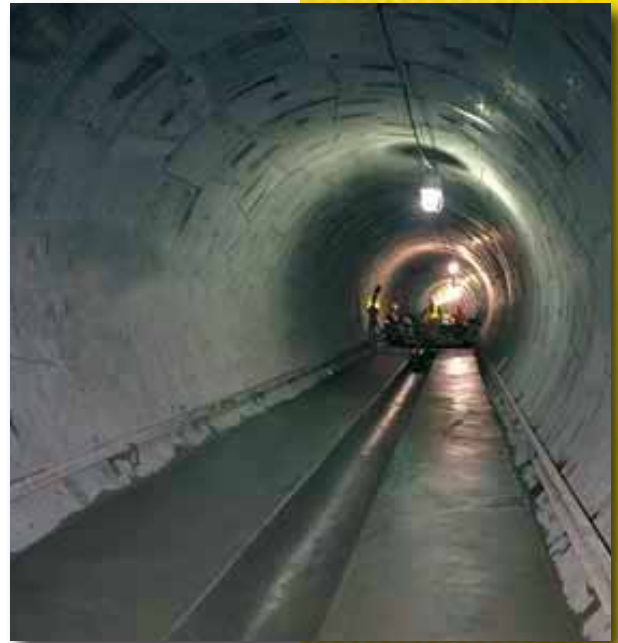
Conventional thermoplastic membranes rely solely on welds to prevent water intrusion at the overlap seams. With CoreFlex, each membrane overlap seam utilizes both a conventional weld and an overlap assembly of the APC Technology to assure water-tightness. This combination of passive and active barrier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



# 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 is available in two thermoplastic membrane thicknesses, 45 mil and 60-mil, both providing superior 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.



**Tunnels**



**Greenroofs**



**Plaza Deck Restoration**



**Property Line Construction**



**Underslab**

Typical applications include foundation walls, tunnels, under slab, plaza decks, plaza deck restoration, 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 thermoplastic 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 thermoplastic waterproofing membranes. Thus, CoreFlex retains its physical attributes and performance over time.

**Superior Reinforcement** – Manufactured with knit polyester fabric, CoreFlex exhibits superior tensile and tear strengths over fiberglass and lighter weight polyester reinforced membranes. The industry's 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

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.



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The information contained herein supersedes all previous versions, and is believed to be accurate and reliable. CETCO makes no warranty of any kind and accepts no responsibility for the results obtained through application of this information. CETCO reserves the right to update information without notice.

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