
Covalence[®]
Heat Shrinkable Products



POLYKEN[®]



Powercrete[®]



AnodeFlex[™]



Comprehensive Corrosion Protection Solutions for the Water Industry

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BERRY
PLASTICS[™]
CORPORATION
AND SUBSIDIARIES
CORROSION PROTECTION GROUP

Corrosion Protection Technologies for the Water Industry

Water processing in the 21st century requires established, innovative technologies and in-service products with demonstrated performance. Berry Plastics Corrosion Protection Group offers a wide variety of proven technologies that provide corrosion protection for water pipelines.

Covalence® Heat Shrinkable Sleeves, Polyken® Tape Coatings, Powercrete® Liquid Epoxies and AnodeFlex™ Long Line Anodes offer a total solution for full corrosion protection of water pipelines. These technologies, some which have been in service for more than 50 years, deliver superior performance across all climates and terrains throughout the world. Berry Plastics global group of scientists, engineers and field specialists combined with its customer service groups offer best of class corrosion protection solutions for the harsh and demanding conditions present in the water industry.

Global Sales and Support Network

Berry Plastics Corrosion Protection Group's representatives are fully committed to providing outstanding customer service and technical expertise in:

- Product selection
- Design
- Technical support

Through its worldwide sales and support networks and alliances with local manufacturing companies, Berry Plastics Corrosion Protection Group is available to readily respond to the needs of its local customers.



Technological Excellence in Research and Development

Berry Plastics Corrosion Protection Group's experienced staff of scientists and corrosion engineers is continuously developing products and systems for the further advancement of corrosion protection solutions for use in the water industry.

The company operates five research centers in North America, Europe and Asia. The research and development strategy is to continue to invest in product advancement, which is essential to the long-term success of effective corrosion prevention and to consistently produce products that meet the needs of the marketplace and the demanding environments where corrosion protection is utilized.



Manufacturing

Our dedicated ISO9001/ QS 9001 certified manufacturing facilities produce the quality products that the industry knows and trusts. In addition, Berry Plastics CPG products comply with Global Industry Standards and customer specifications including: AF, BS, AWWA, CZA, DIN, DVGW, EN, GDF, IDGA, ISO, NSF, PDVSA.



POLYKEN[®]

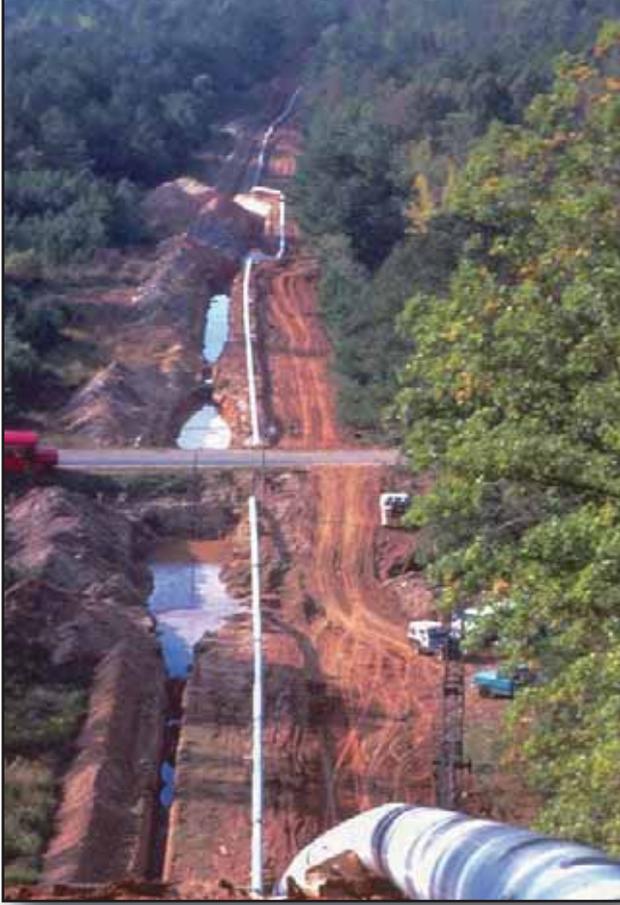
Pipeline Coatings

The Polyken[®] YGIII system is a cold-applied, multi-layer coating system used primarily for the protection of steel and ductile iron water pipelines. Meeting AWWA C214 requirements, the system has a demonstrated in service record of more than 50 years in a wide variety of environments. It is comprised of low and zero-VOC, solvent based primers which comply with all air quality standards and regulations.

The anti-corrosion layer of the product is engineered for maximum adhesion to the primed surface with excellent conformability. The middle and outer mechanical protection layers provide exceptional handling and in-service protection of the coating system.

The YGIII system is designed for machine application and formulated with stress-corrosion cracking inhibitors.

Preferred girthweld coatings for water pipes are shrinkable sleeves meeting AWWA C216 such as Covalence WPC and Waterwrap or cold tapes meeting AWWA C209 such as Polyken[®] cold tapes 905, 930, 932, 934, 936.

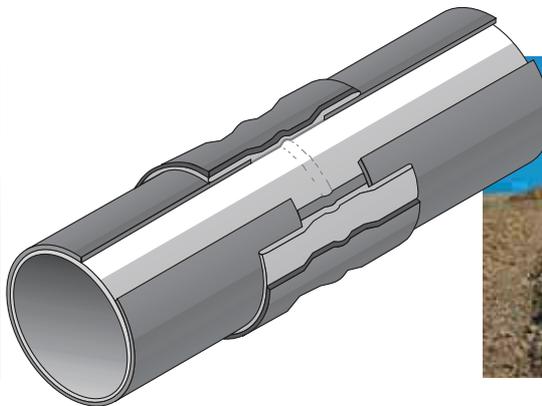


With more than 30 years experience in developing and manufacturing heat-shrinkable products, Covalence[®] offers a wide variety of reliable, high performance solutions with ease of application. Approvals from testing agencies throughout the world (AWWA and DVGW) confirm the suitability for applications and field conditions.



HTLP 3-Layer Wrap-Around Field-Joint Coating

Covalence[®] three-layer field-joint coatings (HTLP) are the toughest field applied coating systems available. The three layers: epoxy, copolymer and modified cross-linked polyethylene are designed to replicate the structure and meet the performance of mill-applied three-layer PE coatings. The coatings are compatible with all commonly used pipe coatings including PE, coal tar enamel, coal tar epoxy, and fusion-bonded epoxy. The system is designed to be applied with minimum preheating of the pipe. The HTLP system consists of a solvent-free two-component liquid epoxy and a wraparound heat-shrinkable sleeve.



Product Features

- Fully resistant to shear forces induced by soil & thermal movements
- Sleeve applied over wet epoxy, with no curing or waiting times
- Superior cathodic disbondment performance & hot water immersion resistance
- Fully reconstructs 3-layer coating at all girth welds for continuous & homogeneous performance on pipelines coated with 3-LPE
- Low preheat requirements

WPC Two-Layer Wrap-Around Field-Joint Coating

WPC sleeves are heat-shrinkable ready-to-fit assemblies for the corrosion protection of welded joints. Available on rolls or as unisleeves, WPC is compatible with standard pipe coatings including: PE, CTE, CT, FBE, PP and asphalt based coatings.



Product Features

- Installation is carried out directly on the cleaned and dried (pre-heated) pipe surface.
- No primer is required.
- No special tools are needed leading to low installation costs.
- “Self Healing” - if mechanical damage occurs, the sealing adhesive fills and seals the damaged area.
- Meets AWWA 216 and DIN30672 requirements.



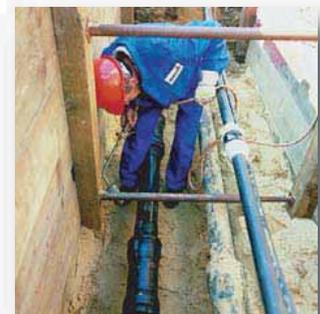
MEPS and MPSM Ductile Iron Joint Protection



MEPS and MPSM heat shrinkable socket protection coatings offer tremendous flexibility for project needs. The MEPS is a wraparound product and the MPSM is a tubular product. These socket-joint protective sleeves are typically used on pipes coated with PE, concrete or other coatings such as paint or zinc. They are also used to coat reducers, bends and dielectric joints. MEPS and MPSM socket joint sleeve are two layer products where the first layer is a special visco-elastic adhesive sealant and the second layer is thick walled, radiation cross-linked, high density polyethylene.

Product Features

- No primer is required.
- Vacuum-tight sealing to exclude groundwater.
- Meets AWWA 216 and DIN30672 requirements.
- No special tools needed leading to low installation costs.
- Installation is carried out directly on the cleaned and prepared pipe surface.
- The angling tolerance and lengthwise play of the bell-and-spigot joint is fully retained.



WaterWrap Wrap-Around Field-Joint Coating for Large Diameter Water Pipe with In Situ Welding

WaterWrap is a wrap-around heat-shrinkable, ready-to-fit assembly for the corrosion protection of field girth weld joints in water distribution and transportation systems, specifically suitable to In Situ welding applications. WaterWrap is compatible with standard pipe coatings. It can also be used for coating bare, replacement pipe sections & large radius bends.

Product Features

- Dimpled backing provides a “permanent change indicator” for correct heat application. It provides a reliable inspection tool during and after installation.
- A low preheat of only 68°F still yields excellent results, even over the weld.
- No special equipment or skills required.
- High modulus of elasticity backing.
- High shrink force.
- Contains no asphalt.
- Adhesive resists high In Situ welding temperatures.



Powercrete® Epoxy Coatings

Since 1980 Powercrete® epoxies have demonstrated strength and integrity as revolutionary liquid coatings for corrosion prevention. They are field-friendly, easy to apply and cost effective.

Powercrete® epoxies are designed to meet the requirements of the most demanding pipeline applications and boast superior adhesion and abrasion resistance, are impervious to soil stress and are compatible with FBE and CTE line coatings.

With years of experience in the pipeline industry Powercrete® has established its reputation based on the following products:



Powercrete®- PW-A

100% solids liquid epoxy designed for the internal coating of pipelines and tanks for potable water applications.

Powercrete® - PW-A is WRAS Certified, BS:6920 Approved, meets AWWA C210 and delivers a high build in a single pass.



Powercrete - J & R-60 (BUR)

100% solids, liquid epoxy designed for the external coating of pipes, bends, fittings and valves for the water market. Powercrete®-J and Powercrete® R-60 (BUR) are user friendly products which exceed AWWA 210, deliver a high build in a single pass, and provide abrasion resistance all with fast cure times.

Powercrete®-W

100% Solids, High-build Liquid Epoxy is designed for internal lining of Pipelines, Joints and fitting for Sea Water and Service/Waste water. It prevents corrosion due to salt water of sea and also withstand pH variation of service/waste water. It can also be applied as single coat, direct to metal (prepared surface) to a thickness of 1000 microns (~ 40 mils) and above.



Powercrete® Product Features

- 100% solids content with no volatile organic compounds (VOCs) and no isocyanates
- Excellent adhesion to bare steel and fusion bonded epoxy mainline coatings (ASTM-D4541)
- Excellent disbondment resistance at ambient & maximum operating temperatures (ASTM G-8 & G-42)
- Superior resistance to water immersion including sea water and ground water over a broad pH range
- Surface and moisture tolerant formulations for offshore wet environments and live-line rehabilitation
- Low temperature grades can be applied in sub-zero temperatures onto a preheated pipe
- Outstanding mechanical properties of impact and abrasion resistance on record setting directional drills
- Powercrete provides field-friendly, cost saving formulations that are high build in a single pass and quick drying



AnodeFlex™

Cathodic Protection

Cathodically protecting buried metal structures such as pipelines and tanks, and prolonging the life of above-ground storage tank bottoms, are the two primary applications for AnodeFlex®, a continuous impressed current anode.

AnodeFlex® is a long-line flexible anode, using a continuous, carbon filled polymer to pass current into the electrolyte. During manufacture, conductive polymer is extruded onto a #6 AWG copper conductor. The polymer seals the copper conductor from chemical attack, yet allows current to flow from the copper to the environment along the entire length of the anode. The anode cable is centered in a porous woven polymer jacket, which is filled with high performance coke breeze. The woven jacket is then cross-braided with monofilament adding strength and compacting the jacket around the centered cable.



When energized, the conductive polymer anode provides current to the coke breeze. Electrochemical reactions occur around the outer perimeter of the coke breeze, sustaining current flow to the target structure for the life of the anode.

AnodeFlex® has been used successfully by some of the world's largest pipeline operators since 1981, to extend the effective life of their pipeline coating systems. AnodeFlex® provides the pipeline owner with a cost-effective option to recoating, while staying in compliance with recommended protection criteria.

Because it is typically 30% of recoating cost and faster to install, more miles of pipeline may be brought up to protected criteria levels using AnodeFlex®, given a fixed maintenance or rehabilitation budget.





- ★ Headquarters
- Manufacturing
- ▲ R&D Facility
- Distribution & CSC
- ◆ Sales & Tech Support



CORROSION PROTECTION GROUP
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The leading global partner in protecting the integrity of critical infrastructure.

Berry Plastics warrants that the product(s) represented within conform(s) to its/their chemical and physical description and is appropriate for the use as stated on the respective technical data sheet when used in compliance with Berry Plastics' written instructions. Since many installation factors are beyond the control of Berry Plastics, the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Berry Plastics' liability is stated in the standard terms and conditions of sale. Berry Plastics makes no other warranty either expressed or implied. All information contained in the respective technical data sheet(s) should be used as a guide and is subject to change without notice. This document supersedes all previous revisions. Please see revision date on the right.

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