

# V-Bio Enhanced Polyethylene Encasement and Corrosion Control



## V-BIO ENHANCED POLYWRAP

Three layers of co-extruded linear low-density polyethylene film that are fused into one.

## ENGINEERED TO DO MORE

Inside surface is infused with an antimicrobial compound and a volatile corrosion inhibitor.

## GENTLE ON OUR PLANET

Ductile iron pipe is made from approximately 93% recycled metal.

## STRENGTH YOU CAN COUNT ON

Ductile iron pipe has 10 times the impact strength, 9 times the tensile strength and 4 times the burst strength of PVC pipe.

## INCREASED FLOW RATES

Ductile iron provides real pumping cost savings of up to 30% annually because of its larger inside diameter.

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# AMERICAN

THE RIGHT WAY

DUCTILE IRON PIPE  
FLOW CONTROL  
INTERNATIONAL  
SPIRALWELD PIPE  
STEEL PIPE

Polyethylene encasement is the most popular, economical and successful method of corrosion control for ductile iron pipe. Since its first installation in a water system in 1958, it has been used to protect hundreds of millions of feet of cast and ductile iron pipe in aggressive environments.

The iron pipe industry has always been innovative and now, with V-Bio, the result is an enhanced polyethylene encasement that specifically addresses the potential influence of anaerobic bacteria and inhibits the formation of corrosion cells under the wrap.



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A Specification  
for  
**V-Bio Enhanced Polyethylene Encasement**  
for  
Ductile Iron Pipe

Polyethylene encasement for use with ductile iron pipe shall meet all the requirements for ANSI/AWWA C105/A21.5, *Polyethylene Encasement for Ductile Iron Pipe Systems*.

In addition, polyethylene encasement for use with ductile iron pipe systems shall consist of three layers of co-extruded linear low density polyethylene (LLDPE), fused into a single thickness of not less than eight mils.

The inside surface of the polyethylene wrap to be in contact with the pipe exterior shall be infused with a blend of anti-microbial compound to mitigate microbiologically influenced corrosion and a volatile corrosion inhibitor to control galvanic corrosion.

Ductile iron pipe and the polyethylene encasement used to protect it shall be installed in accordance with AWWA C600 and ANSI/AWWA C105/A21.5 and also in accordance with all recommendations and practices of the AWWA M41, *Manual of Water Supply Practices – Ductile Iron Pipe and Fittings*. Specifically, the wrap shall be overlapped one foot in each direction at joints and secured in place around the pipe, and any wrap at tap locations shall be taped tightly prior to tapping and inspected for any needed repairs following the tap.

All installations shall be carried out by personnel trained and equipped to meet these various requirements.

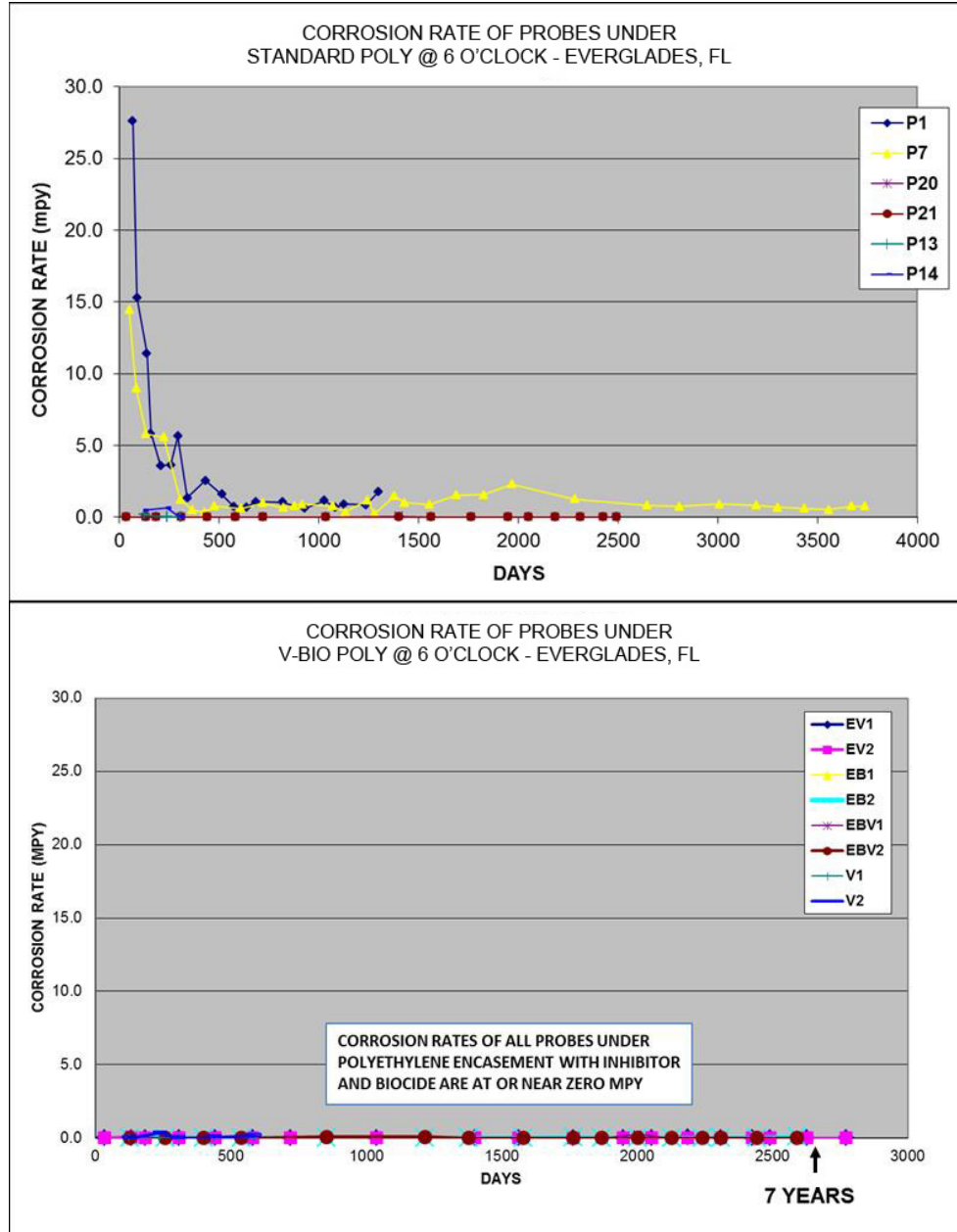
The installing contractor shall submit an affidavit stating compliance with the requirements and practices of ANSI/AWWA C150/A21.50, ANSI/AWWA C151/A21.51, ANSI/AWWA C105/A21.5, AWWA C600 and M41.



V-Bio Enhanced Polyethylene Encasement  
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### Polyethylene Encasement Corrosion Comparison



With standard polyethylene, some corrosion occurs during the first months of installation as the initial supply of oxygen is being depleted, and then corrosion no longer occurs at any measurable rate since the fresh supply of corrosion ingredients is depleted. With V-Bio, you'll see that initial corrosion is non-existent as the anti-microbial components of V-Bio prevent corrosion even with oxygen present.



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