V-Bio Enhanced Polyethylene Encasement

Product Description

V-Bio, the latest advancement in corrosion control for ductile iron pipe, is an enhanced polyethylene encasement that targets anaerobic bacteria on the surface of the pipe and inhibits the formation of corrosion cells under the wrap.

Already known for its corrosion control properties, polyethylene encasement has been used to successfully protect cast and ductile iron pipe in aggressive environments since its first use in a water system in 1958. And now, with V-Bio, this wrap offers even greater protection of the industry's most dependable, economic and long lasting pipe material.

Key facts about the V-Bio enhanced polyethylene encasement:

• Builds on a proven method of corrosion control — polyethylene encasement – that has been protecting iron pipe from aggressive soils since it was first installed in 1958.

• Represents a significant evolutionary advancement in corrosion protection for ductile iron pipe.

• Consists of three layers of co-extruded linear low-density polyethylene (LLDPE) film fused into one.

• Features an inside surface that is infused with a proprietary blend of an anti-microbial compound to mitigate microbiologically influenced corrosion ("MIC") and a volatile corrosion inhibitor ("VCI") to control galvanic corrosion.

• Protects against corrosion without consuming or degrading the compound or the corrosion inhibitor. The film's enhanced properties will last over time.

• Meets all requirements of the American National Standards Institute and the American Water Works Association (ANSI/AWWA C105/A21.5) standard for polyethylene encasement.

• The most advanced method of corrosion control.

For details about V-Bio enhanced polyethylene encasement, ductile iron pipe or the Ductile Iron Pipe Research Association visit: www.dipra.org/v-bio/

Standard Dimensions and Weights

Table No. 11-2

Pipe Size (in.)	Lay Flat size	Length Per Roll[1]	Tape Required[2] per Joint (ft.)	Weight Per Roll[1]
4	20	500	5	72
6	20	500	6	72
8	20	500	8	72
10	27	380	9	73.9
12	27	380	10	73.9
14	34	300	11	73.44
16	34	300	12	73.44
18	41	260	13	73.8
20	41	260	15	73.8
24	54	210	17	81.6
30	67	175	21	72.4
36	81	175	25	75.27
42	81	175	28	75.27
48	95	110	32	82
54	108	110	35	83.64
60	108	110	36	83.64
64	121	100	39	74.96

[1] Weights and lengths subject to change.

[2] Based on one turn at each end, six 4" long strips to secure loose wrap plus approximately 5% extra.

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 antimicrobial 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.