

Disinfection of Newly Constructed Polyethylene Water Mains TR-34/2001



1825 Connecticut Ave., NW Suite 680 Washington, DC 20009 · P: 202-462-9607 · F: 202-462-9779 · www.plasticpipe.org

© Copyright, The Plastics Pipe Institute, 2001

Foreword

This report was developed and published with the technical help and financial support of the members of the PPI (Plastics Pipe Institute). The members have shown their interest in quality products by assisting independent standards-making and user organizations in the development of standards, and also by developing reports on an industry-wide basis to help engineers, code officials, specifying groups, and users.

The purpose of this technical report is to provide important information available to PPI on the durability of PE piping to chlorine disinfection of water systems.

This report has been prepared by PPI as a service of the industry. The information in this report is offered in good faith and believed to be accurate at the time of its preparation, but is offered without any warranty, expressed or implied, including WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any reference to or testing of a particular proprietary product should not be construed as an endorsement by PPI, which does not endorse the proprietary products or processes of any manufacturer. The information in this report is offered for consideration by industry members in fulfilling their own compliance responsibilities. PPI assumes no responsibility for compliance with applicable laws and regulations.

PPI intends to revise this report from time to time, in response to comments and suggestions from users of the report. Please send suggestions of improvements to the address below. Information on other publications can be obtained by contacting PPI directly or visiting the web site.

The Plastics Pipe Institute
Toll Free: (888) 314-6774
<http://www.plasticpipe.org>

October 2001

©Copyright, The Plastics Pipe Institute, 2001

Disinfection of Newly Constructed Polyethylene Water Mains

Table of Contents

1.	Introduction	1
2.	Scope	1
3.	Methods of Chlorination	1
4.	Industry Practice	2
5.	Test Results	2
5.1	Quick Burst	3
5.2	Sustained Hydrostatic Burst	4
5.3	Tensile and Elongation	7
5.4	Oxidative Induction Time	8
5.5	High Speed Tensile Impact	9
5.6	PENT Testing	9
6.	Other Experience	11
7.	Chlorine Dissipation Rate	12
8.	Conclusions / Recommendations	12
9.	References	13