UV Labeling Guidelines for Crosslinked Polyethylene (PEX) Tubing and Pipe

TN-32

2017
UV LABELING GUIDELINES FOR
CROSSLINKED POLYETHYLENE (PEX) TUBING AND PIPE

Foreword

This technical note was developed and published with the technical help and financial support of the members of the Plastics Pipe Institute (PPI). These members have shown their commitment to developing and improving quality products by assisting standards development organizations in the development of standards, and also by developing design aids and reports to help engineers, code officials, specifying groups, contractors and users.

The purpose of this technical note is to provide information to PEX manufacturers regarding guidelines for labelling PEX tubing and pipes with regards to the topic of UV.

The PPI has prepared this technical note as a service to 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 “as is” without any express or implied warranty, including WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Additional information may be needed in some areas, especially with regard to unusual or special applications. Consult the manufacturer or material supplier for more detailed information. A list of member manufacturers is available on the PPI website. PPI does not endorse the proprietary products or processes of any manufacturer and assumes no responsibility for compliance with applicable laws and regulations.

PPI intends to revise this technical note within five years, or sooner if required, from the date of its publication, in response to comments and suggestions from users of the document. Please send suggestions of improvements to the address below. Information on other publications can be obtained by contacting PPI directly or visiting our website.

The Plastics Pipe Institute
105 Decker Court
Suite 825
Irving, TX 75062

www.plasticpipe.org

This Technical Note, TN-32, was first issued in 2004 and was revised in 2010, and July 2017

Copyright © 2017, The Plastics Pipe Institute, Inc.
UV LABELING GUIDELINES FOR
CROSSLINKED POLYETHYLENE (PEX) TUBING AND PIPE

To inform customers and end users about the need to prevent accidental overexposure of crosslinked polyethylene (PEX) tubing and pipe to sunlight (UV light), PPI recommends that a CAUTION label be applied to the packaging of all PEX tubing and pipe.

The size and shape of the label is not defined by PPI, but it is recommended that the label be visible and prominent so that shippers, distributors, contractors, retail customers and others who might be handling the product will not easily miss it.

The recommended text may alternatively be incorporated into existing labels with other information. The universal “no-sun” symbol, as illustrated, may be reproduced in color, black-and-white or grayscale, and be positioned close to the recommended text to increase visibility, and in the largest practical size.

Label may be modified to suit the type of packaging used by manufacturers.

It is recommended that the CAUTION label contain the following text:

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The long-term performance of PEX will be damaged by excessive UV radiation from sunlight.</td>
</tr>
<tr>
<td>• Do not store unprotected PEX outdoors.</td>
</tr>
<tr>
<td>• Keep PEX stored indoors in the original packaging prior to installation for protection against UV/sunlight and other potential hazards.</td>
</tr>
<tr>
<td>• To prevent UV damage, ensure that exposure to sunlight during installation does not exceed the maximum recommended UV exposure time of ( X ) days.</td>
</tr>
<tr>
<td>• UV damage is not visible to the naked eye, but will degrade the material and may reduce its service life.</td>
</tr>
</tbody>
</table>

The allowed exposure time of “\( X \) days” shall be recommended by the tubing or pipe manufacturer following third-party testing of the product according to ASTM Test Method F2657 and the requirements published in standards such as ASTM F876 and CSA B137.5.

Note: These guidelines do not apply to PEX pipes which are specifically intended for outdoor installations and declared by the manufacturer to be resistant to long-term UV exposure, as defined in relevant product standards. Examples include PEX pipes produced to ASTM F2788, ASTM F2905, ASTM F2968 and CSA B137.19.