

ULTRAVIOLET (UV) LABELING GUIDELINE FOR CROSSLINKED POLYETHYLENE (PEX) TUBING AND PIPE

TN-32

2025



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 pipe with regards to the topic of Ultraviolet (UV) exposure.

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This technical note, TN-32, was first issued in 2004 and was revised in 2010, July 2017, and May 2025.

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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 NOTICE label may be applied to the packaging of all PEX tubing and pipe.


Note 1: ASTM F876 does not promote the installation of PEX tubing where it would be exposed to UV radiation or outdoor weathering.

The size and shape of the NOTICE 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 NOTICE label contains the following text:

<p>NOTICE</p> <ul style="list-style-type: none">• Keep PEX stored indoors in the original packaging prior to installation for protection against UV/sunlight and other potential hazards.• Do not store unprotected PEX outdoors.• The long-term performance of PEX will be compromised by excessive UV radiation from sunlight.• To prevent UV damage, ensure that exposure to sunlight during installation does not exceed the maximum allowable UV exposure time of X¹ days.• UV damage is not visible to the naked eye and may degrade the material and reduce its service life.	
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Note 2: TN-32 does 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 according to ASTM F2788, ASTM F2905, ASTM F2968, and CSA B137.19.

¹The allowed UV exposure time of “X days” shall be recommended by the tubing or pipe manufacturer. Additionally, the third-party testing of the product is according to ASTM Test Method F2657 and requirements which are published in standards such as ASTM F876, ASTM F2788, AWWA C904, and CSA B137.5.