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BULLETIN 2001-018-BU/PL

APRIL 19, 2007  
*(Revised)*

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## COMBUSTIBLE WATER DISTRIBUTION PIPING (TUBING) (CROSSLINKED POLYETHYLENE PEX TUBING)

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Crosslinked polyethylene (PEX) tubing is often installed in buildings for use as potable water distribution piping as well as for radiant floor heating systems. This bulletin is intended to clarify some of the Vancouver Building By-law (VBBL) requirements related to this type of product.

### COMBUSTIBLE PIPING IN NON-COMBUSTIBLE BUILDINGS - [Sentence 3.1.5.16.(1) of Division B]

Combustible piping and/or tubing are permitted where:

- a) piping and/or tubing is concealed in a wall or concrete floor assembly, or
- b) where the piping and/or tubing is provided with a flame spread rating of not more than 25 and when used in a "high building", as defined by Subsection 3.2.6, provide a smoke development classification of not more than 50.

### FIRE-RESISTANCE RATING - [Sentence 3.1.7.1.(1) of Division B]

The rating of a floor or wall assembly required to have a fire-resistance rating shall be determined on the basis of tests conducted in accordance with CAN/ULC-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

It is not uncommon for floor and some wall assemblies to require a fire-resistance rating. One manufacturer has tested their PEX tubing in assemblies that provide a one hour and two hour fire-resistance rating. Although equivalency submissions have been accepted in the past, they will no longer be accepted in lieu of the required fire testing starting July 1, 2002. This period of time is intended to allow other manufacturers sufficient time to test and obtain the appropriate listings for their products.

Sentence 3.1.9.2.(1) of Division B also supports the need for testing of combustible piping where the piping is intended to penetrate an assembly required to provide a fire-resistance rating.

### COMBUSTIBLE PIPING PENETRATIONS - [Sentence 3.1.9.4.(2) of Division B]

For rated vertical fire separations only, combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate an assembly without being incorporated in the assembly at the time of testing if the piping is sealed using a fire stop system listed in accordance with CAN4-S115M. The fire stop system must have an "F" rating not less than that required for the fire protection rating for closures located in the fire separation. Please refer to Bulletin 2001-017-BU/PL for further information related to fire stop systems.

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