



**Summary of Substantive Changes
between the 2017 and the 2019a editions of
ASTM F876 “Standard Specification for Crosslinked Polyethylene (PEX) Tubing”**

Presented to the IAPMO Standards Review Committee on January 13, 2020

General: The changes to this standard might have an impact on currently listed products. The substantive change is:

- Added another method for determination of the degree of crosslinking in accordance with ASTM F3203 (see Section 7.9)
- Increased the tolerance for relative humidity from 5% to 10% in the specimen conditioning and test conditions (see Section 8.1)
- Clarified marking requirements for pressure ratings by adding temperature ranges (see Section 10.2.6)

Section 7.9, Degree of Crosslinking: Added another method for determination of the degree of crosslinking in accordance with ASTM F3203 as follows:

7.9 Degree of Crosslinking—*Prepare the specimens by placing ~~Place~~ a tubing sample in a lathe with automatic feeding. Shave strips that consist of the full wall thickness of the tubing. The strip thickness shall be 0.004 ± 0.002 in. (0.1 ± 0.05 mm) which is obtained by setting the lathe feeding accordingly. Test the specimens in accordance with Test Methods D2765, Method B. Alternatively, for routine quality control and monitoring only, testing in accordance with Test Method F3203 is permissible. For either test method the only deviation permitted is test specimen preparation which shall be as specified above. For the purpose of this specification the degree of crosslinking ~~(V) is defined as 100 % minus extract percent equals V~~ is equal to the measured gel content.*

Section 8.1, Conditioning: Increased the tolerance for relative humidity from 5% to 10% in the specimen conditioning and test conditions as follows:

8.1 Conditioning—*Condition of test specimens at $73.4 \pm 3.6^\circ\text{F}$ ($23 \pm 2^\circ\text{C}$) and 50 ± 5 10 % relative humidity for not less than 40 h prior to test in accordance with Procedure A of Practice D618, for those tests where conditioning is required.*

8.2 Test Conditions—*Conduct tests in the standard laboratory atmosphere of $73.4 \pm 3.6^\circ\text{F}$ ($23 \pm 2^\circ\text{C}$) and 50 ± 5 10 % relative humidity, unless otherwise specified in the test methods or in this specification.*

Section 10.2.6: Clarified marking requirements for pressure ratings by adding temperature ranges as follows:

10.2.6 *Pressure ratings for water ~~and temperature(s) for which the pressure(s) rating are valid~~ at 73°F (23°C) and 180°F (82°C) in accordance with 3.2.4 and 3.2.5 using HDB ratings in accordance with 5.2. (Example; 160 psi at 73°F , 100 psi at 180°F)*

NOTE 9—Manufacturer may include additional pressure ratings.