



**Summary of Substantive Changes
between the 2015 and the 2017 editions of
ASTM F438, “Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic
Pipe Fittings, Schedule 40”**

Presented to the IAPMO Standards Review Committee on September 10, 2018

General: The changes to this standard may have an impact on currently listed products. The substantive changes are:

- Changed the test method and apparatus for conducting the Burst Pressure test (See Section 8.5).

Section 8, Test Methods: Removed the description of the test apparatus and changed the test method to reference procedure B in ASTM D1599, an excerpt of which is shown below:

8.5 Burst Pressure—Determine the minimum burst pressure in accordance with Test Method D1599, Procedure B. ~~The time of testing each specimen shall be between~~ The pressure shall be applied at a uniform rate such that the minimum allowable burst pressure is attained in 60 and 70 s.

NOTE 6—Provided the minimum burst pressure is met or exceeded between 60 and 70 s, the time-to-failure may exceed 70 s.

~~8.5.1 Apparatus—Fittings shall be tested while held in a test jig constructed in such a manner as to seal the socket by means of O-rings, or gaskets, but not to reinforce or support the fittings, except where contact is necessary because of the shape of the fitting to keep the fitting in the test jig. Such contact shall be held to the minimum. The socket plug portion of the test fixture must extend one third to two thirds of the socket depth. Failure of any part of the test apparatus does not constitute failure of the fittings.~~

ASTM D1599 Excerpt (Procedure B)

9. Procedure

9.1 Procedure A:

9.1.1 Attach the end closures to the specimen and fill it completely with test fluid which is maintained at the test temperature. Attach specimen to the pressuring device, making certain no gas is entrapped when using liquids. The specimen shall be completely immersed in the conditioning medium.

9.1.2 Condition the specimen as specified in 8.1.

9.1.3 Increase the pressure uniformly and continuously until the specimen fails, measuring the time with a stop watch. If failure time is less than 60 s, reduce the rate of loading and repeat the test. The time to failure for all specimens shall be between 60 and 70 s.

9.1.4 Record the pressure and time-to-failure.

NOTE 7—If additional data can be obtained by continued pressurization after failure (as defined in Section 5), it is the tester’s prerogative to do so but is beyond the scope of this method.

9.2 Procedure B:

9.2.1 Prepare the test specimen in the same way as described in Procedure A (9.1.1 to 9.1.2).

9.2.2 Increase the pressure uniformly and continuously, measuring the time. To determine that the specimen complies with a minimum burst requirement the specimen shall burst between 60 and 70 s, or the minimum burst pressure shall be reached or exceeded between 60 and 70 s.