



**Summary of Substantive Changes  
between the 2010 and the 2015 editions of  
ASTM F2389 “Pressure-rated Polypropylene (PP) Piping Systems”**

**Presented to the IAPMO Standards Review Committee on September 14, 2015**

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

- The hydrostatic test requirements for pipe and fittings were clarified and new test methods and requirements for valves, panels and other appurtenances were specified (see Section 9.1)
- A new table was added for the hydrostatic test conditions for panels and appurtenances (see Table 12)

Section 2, Referenced Documents: Added the new referenced standard ISO 9393–2 as follows:

2.2 *International Organization for Standardization (ISO) Standards:*

*ISO 9080 Plastics Piping and Ducting Systems—Determination of the Long-Term Hydrostatic Strength of Thermoplastics Materials in Pipe Form by Extrapolation*

[ISO 9393–2 Thermoplastics valves for industrial applications - Pressure test methods and requirements – Part 2: Test conditions and basic requirements](#)

*ISO 15874-2:2002 Plastics Piping Systems for Hot and Cold Water Installations—Polypropylene (PP)—Part 2: Pipes*

Section 9.1, Hydrostatic Tests: The hydrostatic test requirements for pipe and fittings were clarified and new test methods and requirements for valves, panels and other appurtenances were specified as follows:

9.1 *Hydrostatic Tests*—Test [pipe and fitting](#) assemblies in accordance with Test Method **D1598**, at the hoop stresses and temperatures given in **Table 11**. An assembly shall consist of at least 4 pipe specimens and 6 fitting joints. For testing valves, the assembly shall include at least 3 valves in the shut-off position (seat test) and 3 valves in the open or partially open position (shell test). Assemblies used in testing of manifolds shall include a minimum of 6 of each type of manifold connection.

[9.1.1 Valves shall be tested in accordance with, and comply with the requirements of each of the following tests of ISO 9393-2.](#)

[9.1.1.1 Shell Test,](#)

[9.1.1.2 Long-term Behavior Test on Complete Valve, and](#)

[9.1.1.3 Seat and Packing Tests.](#)

[9.1.2 Hydrostatic test of panels and other appurtenances—Polypropylene radiant panels and other appurtenances shall be tested in accordance with Test Method D1598 at the conditions specified in Table 12. A minimum of three representative samples shall be tested.](#)



The following table was added:

[Table 12, Hydrostatic Test Conditions for Panels and Appurtenances](#)