



Submittal Information for Spears® Manufacturing Company PVC Class (SDR) Fabricated Fittings

GSPVCCLS-0123

Date: _____

Job Name: _____ Location: _____

Engineer: _____ Contractor: _____

Scope:
This submittal covers Spears® PVC Iron Pipe Size (IPS) Class 63, 100, 125, 160 & 200 Fittings intended for use in pressure applications where the application operating temperature does not exceed 140° F (63°C).

Product Specification:
All Spears® PVC IPS Class Fittings shall be fabricated in the U.S.A by Spears® Manufacturing Company from PVC pipe with a Type I with a minimum cell classification 12454 in accordance with ASTM D1784. Pipe stock shall be certified for potable water service by NSF International and manufactured in strict compliance to ASTM D1785. All Class Fittings shall be designed with an interference fit with its applicable pipe size and conform to Spears® General Specifications for Fabricated Fittings (Fab-7). Gaskets used with PVC gasket-type fabricated fittings shall conform to ASTM F477.

All fabricated Spears® PVC IPS Class Fittings shall meet or exceed the applicable performance criteria below:

Dimensional Conformance

- a. All sockets shall have an interference fit with applicable pipe.
- b. All change-of-direction fittings shall not exceed ± 1° variance in the specified angle.
- c. All standard stock fittings shall have specified cut lengths for all components in order to maintain dimensional consistency. Maximum overall deviations shall not exceed ± ½" for fittings to 12", ± 1" for sizes 14" & larger and all wyes.

Structural Conformance

- a. Burst Pressure - Representative sample of fittings shall be tested to a minimum of two times the applicable maximum internal pressure rating in accordance with ASTM D 1599.
- b. Fabricated fittings shall meet the applicable requirements of the following Quality Assurance testing in accordance with the designated Standard Test Method:

Spears® PVC IPS Socket-type and formed-in-place Gasketed Fittings shall be capable of withstanding a vacuum of twenty-six inches of mercury (Hg) at 73° F (23° C) when subjected to a one hour test with a leak factor of not more than one inch of Hg. leak down.

Water pressure ratings for PVC fabricated Low Pressure Fittings shall be as follows @ 73° F (23° C):

- | | |
|------------------------------|----------------------------|
| Class 63 (SDR 64) 63 psi | Class 160 (SDR 26) 160 psi |
| Class 100 (SDR 41) 100 psi | Class 200 (SDR 21) 200 psi |
| Class 125 (SDR 32.5) 125 psi | |

Product Marking:
Fittings or product packaging shall be labeled with the manufacturer's name, part number, size, description as applicable.

Installation:
Installation for PVC IPS Class Fittings shall comply with current installation instructions published by Spears® Manufacturing Company, established industry practices and all applicable code requirements. Buried pipe installed with Spears® PVC IPS Class Fittings shall be in accordance with ASTM 2774 and ASTM F1668. The piping system shall be joined using a two-step solvent cement joining process with primer conforming to ASTM F656 and solvent cement conforming to ASTM D2564. The system shall be protected from ultra violet (UV) light exposure from the sun or other source and protected from any chemicals that are not compatible with the PVC materials including but not limited to fire stopping materials, plasticizers, incompatible thread sealants, etc.

NOTE: PVC piping systems are suitable for oil-free air handling to 25 psi, not for distribution of compressed air or gas.

Referenced Standards:

- ASTM D1599 – Short Term Hydrostatic Burst
- ASTM D1784 – Rigid Vinyl Compounds
- ASTM D1785 – PVC Schedule 40, 80 & 120 Pipe
- ASTM D2564 – Solvent Cements for PVC Pipe & Fittings
- ASTM D2774 – Procedure for Buried Pressure Pipe
- ASTM F656 – Primers for PVC Pipe & Fittings
- ASTM F477 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- ASTM F1668 – Procedures for Buried Plastic Pipe
- NSF® – NSF International-Potable Water

Approvals:

NSF® – NSF International-Potable Water

PROJECT APPROVAL

Approved: _____
PRINT

Sign: _____

Date: _____

