



# Submittal Information for Spears® Manufacturing Company EverTUFF® CPVC CTS Hot & Cold Water Distribution System

Date: \_\_\_\_\_

GSCTS-0922

Job Name: \_\_\_\_\_ Location: \_\_\_\_\_

Engineer: \_\_\_\_\_ Contractor: \_\_\_\_\_

**Scope:**

This submittal covers Spears® EverTUFF® CPVC CTS Hot & Cold Water Distribution System suitable for potable water applications consisting of SDR11 solid wall pipe and fittings and a one-step primerless solvent cement. This system is intended for use in residential and commercial applications with a pressure / temperature rating of 100 psi @ 180°F (400psi @73° F).

**Product Specification:**

All fittings, pipe, supply stops, valves and cement shall be Spears® EverTUFF® Copper-Tube-Size (CTS) manufactured in the U.S.A. from CPVC 4120 with minimum cell classification of 23447 in accordance with ASTM D1784. All CTS CPVC products shall be produced to applicable requirements of ASTM D 2846 and rated to 100 psi at 180°F, unless specifically designated for cold water service only. Solvent cement shall be produced to applicable requirements of ASTM D 2846 and ASTM F 493. Pipe shall be certified to UL 2818 GREENGUARD GOLD by Underwriters Laboratories (UL). All supply stops shall be 1/4 turn angle or straight pattern CTS CPVC with NPT or Compression male thread outlets. All ball valves shall be CTS CPVC sealed unit type with EPDM O-ring and double stop Polypropylene handle in either Commercial or Residential design. All EverTUFF® CPVC CTS products shall be certified lead-free for potable water use by NSF International in accordance with NSF® 61, NSF® 372 and CSA B137.6. All pipe and fittings shall be listed by ICC-ES PMG-1278 for compliance with ASTM E84/ UL723 Surface Burning Characteristic having flame spread/smoke development index of less than 25/50 for use in return air plenums, as manufactured by Spears® Manufacturing Company. CTS installation training is recommended. Contact Spears® to schedule a training class.

**Product Marking:**

Complete Spears® EverTUFF® CPVC CTS system shall be tan color and include required marking prescribed in ASTM D2846. Pipe shall have ICC-ES PMG E84 25/50 rated marking and GREENGUARD GOLD marking. Joining method for pipe and fittings shall be solvent cement welding. CPVC Solvent cement shall be a “one-step” primerless type and manufactured in accordance with ASTM F2618 and F493. Pipe and cement shall have GREENGUARD GOLD marking. All pipe, fittings, and cement shall be supplied as a complete system with a limited lifetime warranty, as Spears® EverTUFF® CPVC

CTS Hot & Cold Water Distribution System manufactured by Spears® Manufacturing Company.

**Installation:**

Installation practices such as pipe support spacing, bracing, allowance for thermal expansion/contraction, solvent cementing and handling and storage shall be in accordance with the manufacturer’s instructions and this specification. Buried pipe shall be in accordance with ASTM F1668. The piping system shall be joined using a special one-step primerless solvent cement joining process conforming to ASTM F493 or in combination with a suitable primer as required by the local plumbing codes. 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 CPVC materials including but not limited to fire stopping materials, plasticizers, incompatible thread sealants etc.

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

**Referenced Standards:**

- ASTM D1784 – Rigid Vinyl Compounds
- ASTM D2846 – CPVC CTS Water Distribution Systems
- ASTM F493 – Solvent Cements for CPVC Pipe & Fittings
- ASTM F1668 – Procedures for Buried Plastic Pipe
- ASTM/E84/UL723 – Flame & Smoke Testing

**Approvals:**

- CSA B137.6 - CPVC pipe, tubing, and fittings for hot and cold water distribution systems
- ICC-PMG 1278 – ICC Listing for Plenum Use
- NSF® – NSF International Standard 61 & 372
- UL – GREENGUARD GOLD Certified UL 2818

**PROJECT APPROVAL**

Approved: \_\_\_\_\_  
PRINT

Sign: \_\_\_\_\_

Date: \_\_\_\_\_

