



# EverTUFF® CTS CPVC HOT & COLD WATER DISTRIBUTION SYSTEM

CTS-2-0510

## Certified Safe Alternative to Metal Plumbing Systems



All conventional metal plumbing systems corrode leaving their corrosive wastes for deposit into the water system. CPVC thermoplastic system components never corrode. Spears® EverTUFF® CTS CPVC systems of fittings, pipe, supply stops & valves are Certified lead-free by NSF International (NSF®) for compliance with California and Vermont low-lead plumbing requirements for safe use in drinking water systems. Approved by national, state and municipal building codes\*, Spears® CTS CPVC products are ideally suited for hot and cold water distribution systems in residential and commercial structures, as well as recreational vehicles, modular homes and mobile homes.

\*Check state and local codes.

### Full Line of CTS CPVC Fittings, Pipe, Supply Stops & Ball Valves 1/2" Through 2" Plus Supplemental IPS CPVC in 2-1/2" & Up

EverTUFF® CPVC pipe and fittings are available for most any size project using Copper Tube Size (CTS) in sizes 1/2" through 2". EverTUFF® Schedule 40 and Schedule 80 CPVC Iron Pipe Size (IPS) are available for sizes 2-1/2" and larger for commercial applications such as multi-story installations when adequate design and installation practices have been utilized .

#### Exceptional Corrosion Resistance

Unlike metal systems, CPVC products never rust, scale, or pit, and will provide many years of maintenance-free service and extended system life.

#### Energy Savings

Low heat conductivity minimizes heat loss in hot water systems.

#### Higher Flow Capacity

Smooth interior walls result in lower pressure loss and higher volume than conventional metal systems.

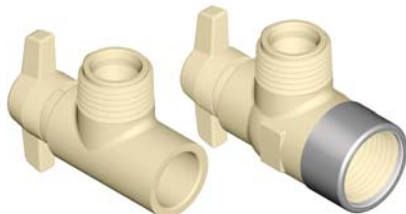
#### Lower System Costs

Lower material costs than metallic systems, combined with lighter weight and ease of installation, can substantially reduce overall system cost.

#### Suitable for Commercial Hot Water

CTS CPVC products can handle fluids at service temperatures up to 180° F (82° C). IPS CPVC service temperatures and pressures vary according to pipe size.

### CTS CPVC 1/4-Turn Angle Supply Stop



Spears® EverTUFF® lead-free Supply Stops are used at plumbing fixtures to terminate hot and cold water supply. NSF® Certified to ASTM F 1970 for use in ASTM D 2846 Hot & Cold Water Distribution Systems rated to 100 psi @ 180° F Available in 1/2" CTS Socket or Spears® patented Special Reinforced (SR) 1/2" FIPT female thread inlet x 1/2" straight male thread outlet for connection to conventional 1/2" FPT faucet or toilet supply lines with captive seals.

### CTS CPVC Ball Valves



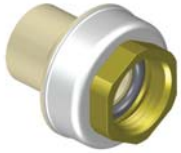
Spears® EverTUFF® lead-free Copper-Tube-Size Ball Valves feature one-piece design that never requires adjustment. Standard EPDM O-ring seal and Teflon® Seats enable bubble-tight shut off. High impact Polypropylene handle has double stop engagement. 100 psi maximum internal pressure rating at 180° F and NSF® Certified for use in potable water systems.

**PROGRESSIVE PRODUCTS FROM SPEARS® INNOVATION & TECHNOLOGY**

Visit our web site: [www.spearsmfg.com](http://www.spearsmfg.com)

# Spears® EverTUFF® Exclusive Specialty Fittings...

## Gasket Sealed Brass-Threaded Transition Fittings



- Eliminates Radial Stress
- Requires NO Thread Sealants
- Eliminates Sealant Incompatibility
- NSF® Certified Lead-Free

Spears® lead-free Gasket-Sealed CTS CPVC Brass-Threaded Transition Fitting design features a special molded-in-place Brass Thread Insert fitted with an elastomer gasket seal at the base of the threads. The gasket sealed design eliminates radial stress and requires no thread sealant.

## Special Reinforced (SR) Plastic Threaded Transition Fittings



- Eliminates Split Threads
- Eliminates Leaks Associated with Over and Under Tightening
- Eliminates MIC, Electrolytic & Soil Chemistry Corrosion Problems

Spears® lead-free Patented CTS CPVC Special Reinforced (SR) Fittings reduce problems associated with over tightening of female plastic pipe threads. Not just an added ring, this unique precompression design compensates for expansion forces generated from tapered pipe thread joint make-up.

## Anti-Stress Drop-Ear Fittings & Brackets



Drop Ear 90° Elbow

- Secures plumbing drops against horizontal and vertical movement
- Eliminates fitting damage during installation of plumbing drops



Drop Ear Bracket

## Spears® EverTUFF®, The Full-Service CTS CPVC Product Line...

### Application

Spears® EverTUFF® Copper-Tube-Size (CTS) products are manufactured from chlorinated polyvinyl chloride (CPVC) for use with SDR-11 piping systems of CTS outside diameter in hot and cold water distribution systems in nominal pipe size 1/2" through 2". CTS CPVC products can be used in conjunction with Spears® supplemental Schedule 40 and Schedule 80 CPVC Iron-Pipe-Size (IPS) pipe and fittings for sizes 2-1/2" through 12" in commercial multi-story installations. Check state and local codes for application and restrictions.

### Working Pressure

Spears® EverTUFF® CTS CPVC fittings, pipe and valves have a continuous working pressure rating of 100 psi at 180° F.

### Conformance Standards

Spears® EverTUFF® CTS CPVC fittings conform to ASTM D 2846 Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot and Cold Water Distribution Systems.

### Product Certification

Spears® EverTUFF® CTS CPVC pipe and fittings are certified by NSF International (NSF®) to ASTM D 2846 for use in Hot and Cold Water Distribution Systems, to the Uniform Plumbing Code (NSF® U.P.Code) and for use in potable water service. All Spears® EverTUFF® CTS CPVC products are NSF® certified lead-free in accordance with ANSI/NSF Standard 61, Annex G for compliance with California's Health & Safety Code Section 116875 (commonly known as AB1953) and Vermont Act 193.

### Sample Engineering Specifications

All fittings, supply stops and valves shall be Copper-Tube-Size (CTS) constructed from CPVC Type IV Cell Classification 23447. 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. All supply stops shall be 1/4 turn angle pattern CTS CPVC with male thread outlets. All ball valves shall be CTS CPVC sealed unit type with EPDM O-ring and double stop Polypropylene handle. All CTS CPVC products shall be certified lead-free for potable water use by NSF International in accordance with NSF-61 Annex G, as manufactured by Spears® Manufacturing Company.



**WARNING:** THE USE OF COMPRESSED AIR OR GASES FOR TESTING MAY RESULT IN SYSTEM DAMAGE OR SERIOUS OR FATAL BODILY INJURY.



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