### LabWaste<sup>®</sup> Technical LabWaste<sup>®</sup> Overview

Proven Solvent Cement Joining <u>Eliminates</u> Troublesome Fusion Equipment, Mechanical Joints & Elastomer Problems NSF® Certified for Corrosive Waste Use & Listed to ASTM F 2618 Specification for CPVC Pipe & Fittings for Chemical Waste Drainage Systems & CSA B181.2-2018 PVC & CPVC Drain, Waste, and Vent Pipe and Pipe Fittings • Listed by ICC-ES PMG 1018 for Compliance with the International Plumbing Code & Uniform Plumbing Code • Listed by ICC-ES PMG 1278 for Compliance with ASTM E84 25/50 Requirements of the International Mechanical Code & Uniform Mechanical Code



#### **Chemical & Corrosion Resistant CPVC**

One of the key advantages of Spears<sup>®</sup> LabWaste<sup>®</sup> CPVC System is its excellent resistance to a broad range of corrosive environments. CPVC is inert to most mineral acids, bases, salts and aliphatic hydrocarbons, and compares favorably to other plastics in these chemical environments.

#### **General Chemical Resistance Overview:**

Weak Acids	Excellent	Salts	Excellent
Strong Acids	Excellent	Aliphatic Solutions	Good
Weak Bases	Excellent	Halogens	Good-Fair
Strong Bases	Excellent	Strong Oxidants	Good-Fair

The **LabWaste**<sup>®</sup> CPVC System has been developed for use in Academic, Research, and Institutional Laboratory chemical waste drainage applications. These plumbing systems are characterized by the routine disposal of a wide variety of hot and cold chemical wastes in accordance with prudent laboratory practices for drainage disposal.

# Manufactured to ASTM F 2618 in Full Line of Drainage Pattern Fitting Configurations

Spears<sup>®</sup> broad line of **LabWaste**<sup>®</sup> CPVC pipe & fittings are manufactured to ASTM F 2618 Specifications for CPVC Pipe & Fittings for Chemical Waste Drainage Systems and produced in ASTM D 3311 drainage patterns or to manufacturer's specifications. Standard configurations are available in nominal sizes of 1-1/2" through 24" with many specialty fittings and accessories, like dilution traps, (water dilution being critical in the prevention of exothermic chemical interactions within all plumbing systems).

- · Complete System of Pipe, Fittings & Adapters
- Meets 25/50 Flame & Smoke Requirement for use in Return Air Plenums
- Non-Pressure Drainage Service to 220° F
- All CPVC Construction in a Full Assortment of Standard DWV Patterns
- Accessories including Drains, Neutralization Tanks, and Dilution Traps
- Specially Formulated One-Step Solvent Cement Provides Chemical Resistance Equal to System Pipe & Fittings - Now in Special Yellow Color

#### **NSF® Certified For Corrosive Waste**

Spears<sup>®</sup> LabWaste<sup>®</sup> Corrosive Water Drainage System of pipe, fittings, and cement is certified for use in corrosive waste systems by NSF International to ASTM F 2618, CSA B181.2-2018 and ICC-ES Listed to PMG-1018, CPVC Chemical Waste Systems, for compliance to the International Plumbing Code and the Uniform Plumbing Code (See PMG Listing No. PMG-1018 at www.icc-es-pmg.org).

#### Cost Saving Solvent Weld Joining Eliminates the need for Electro-Fusion Joints and for Mechanical Joint Connections in Concealed Spaces

A proven joining method reliably used for over 50 years, Solvent Cement Welding requires no special tools, no costly fusion, easy installation, repairs or alterations. Most importantly, solvent cement joints end problems typical of polypropylene system installation, such as mechanical connector pullout, maintaining mechanically sealed joints, leaks from fusion wire corrosion, and cumbersome fusion joining methods. Saves time, saves cost, saves worry!

#### A Flame & Smoke Rated Piping System

Spears<sup>®</sup> LabWaste<sup>®</sup> system components have tested dry Listed by ICC-ES PMG 1278 for Compliance with ASTM E84/UL723 Tests for Surface Burning Characteristics having a flame spread of <25 and a smoke developed index of < 50 meeting the requirements of the International Mechanical Code and Uniform Mechanical Code for use in return air plenums (See PMG Listing No. PMG-1278 at www.icc-es-pmg.org). LabWaste<sup>®</sup> is additionally Listed by Underwriters Laboratories of Canada (ULC<sup>®</sup>) under CAN/ULC S102.2 for Surface Burning Characteristics of less than 25/50.

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Suitable for Oil-Free air handling to 25 psi, not for distribution of compressed air or gas See Spears<sup>®</sup> Product Sourcebook for product offerings



#### Applicable Conformance Standards & Certifications

Spears<sup>®</sup> LabWaste<sup>®</sup> CPVC Corrosive Waste Drainage System is a complete system of pipe, fittings and solvent cement independently (3rd party) tested, evaluated and certified by the following laboratories and agencies. Each of these approvals is routinely monitored through an ongoing program of periodic inspection and testing by the certifying agency.

• ASTM F 2618 - Certified for corrosive waste and use by NSF International (NSF<sub>®</sub> cw) in accordance with ASTM F 2618, Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Fittings for Chemical Waste Drainage Systems.

• Uniform Plumbing Code - Certified for use in accordance with the Uniform Plumbing Code (UPC<sup>®</sup>) by NSF International as specified in IAPMO IGC 210, Interim Guide Criteria for Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Fittings for Limited Chemical Waste Drainage System. (NSF<sub>®</sub> U.P.Code).

• International Plumbing Code - Spears<sup>®</sup> LabWaste<sup>®</sup> CPVC system has been approved for use in accordance with the International Plumbing Code (IPC<sup>®</sup>) by the International Codes Council Evaluation Services (ICC-ES) in accordance with ICC-ES PMG Listing PMG-1018 for Spears<sup>®</sup> LabWaste<sup>®</sup> CPVC Corrosive Waste Drainage System (See ICC-ES PMG Listing PMG-1018 at www.icc-es-pmg.org).

• Uniform Mechanical Code - Listed by the International Codes Council Evaluation Services (ICC-ES PMG) in accordance with ASTM E84 and UL<sub>®</sub> 723 for compliance with requirements of the Uniform Mechanical Code<sup>®</sup> (UMC) for use in return air plenums by having a Flame Spread/ Smoke Development of less than 25/50, respectively, under listing number PMG-1278. (See PMG Listing No. PMG-1278 at www.icc-es-pmg.org).

• International Mechanical Code - Listed by the International Codes Council Evaluation Services (ICC-ES PMG) in accordance with ASTM E84 and UL<sub>®</sub> 723 for compliance with requirements of the International Mechanical Code<sup>®</sup> (IMC) for use in return air plenums by having a Flame Spread/ Smoke Development of less than 25/50, respectively, under listing number PMG-1278. (See PMG Listing No. PMG-1278 at www.icc-es-pmg.org).

• Canadian Surface Burning Characteristics - by Underwriters Laboratory of Canada (ULC®) for evaluation of Flame Spread and Smoke Density in accordance with CAN/ULC S102.2 for finished product having a Flame Spread/Smoke Development of less than 25/50, respectively.

• Canadian Standards Association - Certified for corrosive waste and use by NSF International (NSF<sub>®</sub>-cw) in accordance with CSA B181.2-2018 - PVC & CPVC Drain, Waste, and Vent Pipe and Pipe Fittings and ASTM F 2618, Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Fittings for Chemical Waste Drainage Systems.

• UL 2818 Performance Certification - Certified by Underwriters Laboratories (UL<sub>®</sub>) for conformance to UL 2818 Certification Program For Chemical Emissions For Building Materials, Finishes And Furnishings. This GREENGUARD GOLD Certification provides eligibility for LEED<sup>®</sup> credits when installing LabWaste<sup>®</sup> in green building projects.

#### Flammability & Surface Burning Characteristics

Flammability	UL94	UL94: Tests for Flammability of Plastic Materials	
Material Rating	V-0		
Flame & Smoke Rating	CAN/ULC S102.2 Listed <sup>1</sup> UL 723/ASTM E 84 Tested <sup>2</sup>		
Flame Spread: Smoke Developed:	<25 <50	CAN/ULC S102.2: Surface Burning Characteristics UL723/ASTM E 84: Surface Burning Characteristics (NFPA 255, ANSI/UL 723 and UBC 8-1)	

Notes:

1 - ULC<sup>®</sup> listing based on test of finished product, pipe and fittings solvent cement welded as assemblies.

2 - UL 723/ASTM E 84 test by Southwest Research Institutes<sup>™</sup> (SwRI<sup>™</sup>) Department of Fire Technology under project No. 1.10083.01.269d, September 20, 2004, test of combr. (do) CPUC pipe with doy fit and cope and material in the colling position

empty (dry) CPVC pipe with dry fit end caps and material in the ceiling position.



## Spears<sup>®</sup> LabWaste<sup>®</sup> Custom System Accessories

#### Acid Neutralization/Dilution Tanks for Use With LabWaste® CPVC Systems

Neutralization or dilution tanks are required by codes for the purpose of neutralizing corrosive wastes. Corrosive liquids, spent acids or other harmful chemicals that destroy or injure a drain, sewer, soil or waste pipe, or create noxious or toxic fumes or interfere with sewage treatment processes are prohibited from being discharged into the plumbing system without being neutralized or treated. Spears<sup>®</sup> offers a standard selection of HDPE tanks in 5 gallon to 3000 gallon capacities and CPVC tanks in 5 gallon to 55 gallon capacities to meet these needs. Tanks can also be produced in virtually any custom size, shape, or connection configuration. Contact Spears<sup>®</sup> Technical Services with desired specifications for custom quotation. See Spears<sup>®</sup> SPS-1, LabWaste<sup>®</sup> Neutralization Tanks & Accessories for additional information on the following features and options.

- CPVC Tanks 5-gallon to 55-gallon
- HDPE Tanks 5-gallon to 3000-gallon
- Optional Vented Tanks
- Socket (CPVC), Thread or Flanged Connection
- Inspection & Manhole Port Options
- Pedestrian or Vehicular Traffic Cover Options
- Tank Extension Options
- Limestone Chip Neutralization Medium

#### LabWaste<sup>®</sup> Floor Drains & Cleanouts

Spears<sup>®</sup> LabWaste<sup>®</sup> CPVC Floor Drains are available for connection to 1-1/2" through 4" drainage pipe. Standard drains have adjustable 5" round CPVC grates and can be ordered with optional CPVC 1/8" perforated sediment strainer to trap debris. CPVC drains also available with adjustable round Stainless Steel grates in 5", 6", 7" or 8" diameters. Standard CPVC Floor Cleanouts have 5" round, adjustable Stainless Steel access covers. All Floor Drains and Floor Cleanouts are available with optional membrane plate for clamping housing to waterproof membranes when used in floor installations.



