

Orion

FRPP & PVDF Piping

Providing the **chemical resistance needed** for **laboratory waste drainage!**



CHEMICAL RESISTANCE

Orion piping systems are made of **FRPP** (fire retardant polypropylene) and **PVDF** (polyvinylidene fluoride). FRPP and PVDF are **industry standard** materials for use in chemical waste drainage systems such as laboratory settings in schools, universities, and research facilities.

Unlike other materials, FRPP and PVDF **meet stringent requirements*** for laboratory waste drainage, providing:

- Chemical resistance to a wider range of chemicals than piping materials used for sanitary drain, waste, and vent applications
- Resistance to the chemicals generally found in laboratories, in a wide range of concentrations, combinations and operating temperatures

When piping materials not particularly suited for laboratory waste drainage are chosen for chemical waste drainage applications, extra precautions and/or operating procedures are often necessary to prevent system failure. Although it is a standard choice for sanitary drain, waste and vent applications, CPVC piping is often less appropriate for use in laboratory waste drainage for several reasons.

- CPVC piping systems are joined by solvent-welding and are generally susceptible to chemical attack by solvents.
- Requirements for CPVC piping systems are cumbersome and unrealistic. For example, per manufacturers' instructions CPVC systems **must be flushed with water** as a condition of use for laboratory waste applications.
- Schools cannot rely on students to conform to usage requirements and cannot risk using CPVC laboratory waste without flushing their systems.
- Common laboratory solvents such as chloroform, formaldehyde, and tetrahydrofuran will attack CPVC.
- Acetone, a solvent widely used in organic chemistry for washing laboratory glassware, will also attack CPVC.

* As defined by conformance to ASTM F1412, ASTM F1673, and CSA B181.3.

ORION®

A Watts Water Technologies Company

USA: Tel: (913) 342-1653 • Fax: (913) 342-7218 • OrionFittings.com

Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • OrionFittings.ca

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • OrionFittings.com

PF-OR-CHEM COMPATIBILITY 1550

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