



CSI: DIVISION: 22 00 00—PLUMBING  
Section: 22 13 16—Sanitary Waste and Vent Piping  
Section: 22 66 00—Chemical-Waste Systems for Laboratory and Healthcare Facilities

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Plenum Plus PVDF Resins Corrosive Waste Drainage Piping and Fittings—for use in accordance with the manufacturer's chemical resistance recommendations for non-pressure corrosive or acid waste drainage applications.

Listee: Watts®  
815 Chestnut Street  
North Andover, Massachusetts 01845  
[www.watts.com](http://www.watts.com)

Compliance with the following codes:

2024, 2021, 2018, 2015, 2012 and 2009 *International Plumbing Code*® (IPC)  
2024, 2021, 2018, 2015, 2012 and 2009 *International Mechanical Code*® (IMC)  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Mechanical Code*® (UMC)\*

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Compliance with the following standards:

ASTM E84-2023d, Standard Test Method for Surface Burning Characteristics of Building Materials

Identification:

Plenum Plus PVDF Resins Corrosive Waste Drainage Piping and Fittings are marked with the manufacturer's name or trademark, the material designation and type, nominal pipe size in inches, "E84," schedule size, and the ICC-ES PMG listing mark. The pipe must be marked at intervals not exceeding 5 feet (1.524 m). The packaging is labeled with the same information and with a note allowing use in plenums.

**Installation:**

Installation of the drainage pipe and fittings must comply with the manufacturer's published installation instructions and the applicable code.

Polyvinylidene fluoride (PVDF) schedule 40 pipe and fittings are for use in non-pressure corrosive or acid waste systems. Fittings and pipe may be joined by either heat fusion or by a mechanical joining system. Pipe and fittings must be installed in accordance with the manufacturer's instructions and the requirements of the applicable code.

**Models:**

Plenum Plus PVDF Resins Corrosive Waste Drainage Piping and Fittings demonstrated a flame spread index of less than 25 and a smoke developed index of less than 50 when tested according to ASTM E84. Therefore, the material is suitable for installation in plenums.

Plenum Plus PVDF Resins Corrosive Waste Drainage Piping and Fittings are supplied in pipe and fitting sizes of 1½, 2, 3, 4, 6, 8, 10 and 12 inches (38.1, 50.8, 76.2, 101.6, and 152.4 mm).

**Conditions of Listing:**

1. Installation of the drainage pipe and fittings must comply with the manufacturer's published installation instructions and the applicable code.
2. The methods of treatment, neutralization or dilution of the chemical waste transported by the drainage pipe and fittings, when discharging to a sanitary drainage system in accordance with IPC Section 803.2, are outside the scope of this listing.
3. The Plenum Plus PVDF resin is under a quality control program with annual surveillance inspections by ICC-ES.