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## BUILDINGS BULLETIN 2015-022

### OTCR

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**Supersedes:** None

**Issuer:** Alan Price, P.E.  
Director, Office of Technical Certification and Research

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**Purpose:** This document establishes acceptance criteria for the use of chlorinated polyvinyl chloride (CPVC) water recycling distribution piping systems as an alternative material in the NYC Construction Codes.

<b>Related Code Section(s):</b>	AC 28-113	PC 312	PC C101.8
	BC 1704.14	PC 605.4	PC C101.6
		PC 608	1 RCNY 101-06

**Related Buildings Bulletin(s):** BB 2010-027

**Subject(s):** Chlorinated polyvinyl chloride; Water recycling distribution piping system, chlorinated polyvinyl chloride

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**Background:** PC section C101.5 of the NYC Construction Codes identifies materials used for water recycling distribution piping systems. However, CPVC is not recognized as an acceptable material. This bulletin establishes acceptance criteria for CPVC water recycling distribution piping systems as an acceptable material.

**Description:** Chlorinated polyvinyl chloride ("CPVC") is a thermoplastic produced by chlorination of polyvinyl chloride ("PVC") resin. CPVC water recycling distribution piping system components include piping and fittings.

**Uses:** CPVC water recycling distribution piping systems may be used for water recycling distribution piping systems for non-potable water.

**Restrictions:**

CPVC water recycling distribution piping systems are made from plastic material and shall not be used for water distribution piping systems pursuant to PC section 605.4.

**Evaluation Scope:** NYC Construction Codes

**Evaluation Criteria:** Pursuant to AC section 28-113, the Office of Technical Certification and Research (OTCR) recognizes CPVC water recycling distribution piping system components tested and evaluated in accordance with ASTM D 2846 "*Standard Specification for Chlorinated Polyvinyl Chloride (CPVC) Plastic Hot- and Cold-Water Distribution Systems*"<sup>1</sup>. Acceptable CPVC water recycling distribution piping systems shall be listed and labeled by an approved agency in accordance with

AC section 28-113.2.3 and shall comply with the conditions of this bulletin.

**Conditions of Acceptance:** CPVC water recycling distribution piping systems shall be designed, installed, inspected, and labeled in accordance with the NYC Construction Codes and other applicable provisions including but not limited to the following:

**A. Design**

1. When connected to a potable water supply system, the valve isolating the CPVC water recycling distribution piping system from the domestic water supply system shall be located after any required building RPZ valve and such valve shall comply with the NYC Plumbing Code for potable water system valves.
2. CPVC water recycling distribution piping systems shall be identified as carrying non-potable water even if such systems contain potable water as required by PC section C101.6, PC section 608.8, and OTCR Buildings Bulletin 2010-027 issued on November 10, 2010.
3. CPVC water recycling distribution piping systems shall be located in the same lot as the water recycling system as per OTCR Buildings Bulletin 2010-027.
4. All CPVC water recycling distribution piping systems shall comply with OTCR Buildings Bulletin 2010-027.
5. When potable water is provided to CPVC water recycling distribution piping systems as makeup water, it shall be protected against backflows in accordance with PC section 608 and PC section C101.8.

**B. Installation**

1. Installation requirements shall be in accordance with the manufacturer's instructions, the NYC Plumbing Code, and the conditions of this bulletin.
2. Protection from sunlight shall be required when CPVC water recycling distribution piping systems are used in above-ground, exterior applications.
3. Installation of CPVC water recycling distribution piping systems shall be performed by a NYC licensed master plumber.

**C. Inspection of Installation**

Pursuant to BC section 1704.14, the installation of CPVC water recycling distribution piping systems shall be subject to special inspection requirements of Chapter 17 of the Building Code and all Department rules covering special inspection. Special Inspectors of CPVC water recycling distribution piping systems shall:

1. Have qualifications and experience which include PE or RA and 1 year relevant experience.
2. Have duties and responsibilities in accordance with, but not limited to: 1) verifying compliance with part "A" items 1 to 5 of this bulletin, 2) witnessing tests as per PC section 312.1.2 as the approved agency and 3) all code provisions and departments rules regarding special inspections including 1 RCNY §101-06
3. Complete the statement of special inspection by referencing this Bulletin under the special inspection item for "Alternative Materials (BC 1704.14)" in section 3.0 of the TR1 form.

<input type="checkbox"/>	Mastic and Intumescent Fire-resistant Coatings	BC 1704.12	
<input type="checkbox"/>	Exterior Insulation and Finish Systems (EIFS)	BC 1704.13	
<input type="checkbox"/>	Alternative Materials - OTCR Buildings Bulletin #	BC 1704.14	
<input type="checkbox"/>	Smoke Control Systems	BC 1704.15	
<input type="checkbox"/>	Mechanical Systems	BC 1704.16	

Use this line to identify CPVC water recycling distribution piping systems.

**D. Labeling**

CPVC water recycling distribution piping systems shall be labeled as per AC section 28-113.4 and ASTM D2846, section 12. All shipments and deliveries of materials shall be accompanied by a certificate or label certifying that the materials shipped or delivered are equivalent to those tested and approved.

- Referenced Standards:**
1. ASTM D 2846-2009 "Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems." ([www.astm.org](http://www.astm.org))