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November 17, 2016

John Ramin  
Pacific Plastics Inc.  
111 S. Berry St.  
Brea, CA 92821

RESEARCH REPORT: RR 5408  
EFFECTIVE DATE: 11/20/16  
EXPIRATION DATE: 08/01/17  
Telephone: 714-990-9050

**GENERAL APPROVAL - Technical Modification** - "Pacific Cal" PVC pipes for water and sewer applications. See attached page for list of approved sizes, and classes or schedules.

### DETAILS

These products are white, brown and purple colored poly (vinyl chloride) (PVC) pipes made in various diameters and wall thicknesses. The brown colored pipe is UV resistant. The purple colored pipe is for reclaimed water systems. These pipes are available with plain, bell end solvent cemented, or elastomeric gasketed joining, and are manufactured in accordance with Standards ASTM D 1785, D 2241, D 2672, D 3139 and D 3034. These pipes are also currently listed by International Association of Plumbing and Mechanical Officials and National Sanitation Foundation.

The approval is subject to the following conditions:

1. These pipes are approved for use in locations where PVC pipes are approved in accordance with the Los Angeles Plumbing Code(LAPC), 2014 Edition.
2. These PVC pipes are approved for the following applications:
  - a. Pipes labeled NSF-pw are approved for potable water applications.
  - b. Pipes labeled ASTM D 1785 are Schedule 40 and 80 pipes approved for cold water applications.
  - c. Pipes labeled ASTM D 2241 are SDR pipes approved for cold water applications.
  - d. Pipes labeled ASTM D 2672 are gasketed bell pipe for cold water applications.
  - e. Pipes labeled ASTM D 3139 are gasketed bell pipe for cold water applications.
  - f. Pipes labeled ASTM D 3034 are Type PSM (SDR 35) pipes approved for sewer applications.

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3. Only UV resistant brown colored pipes may be installed in locations exposing it to direct sunlight. All other pipes shall be installed either below ground or in other approved locations where not exposed to direct sunlight.
4. Purple colored pipe shall only be used in reclaimed water systems. There shall be no direct connections made between any potable water systems and any pipe carrying reclaimed water even with a backflow preventer.
5. Solvent cement complying with the Standard ASTM D 2564 with an approved primer shall be used for joining these piping systems.
6. Pipes installed for cold water building supply applications shall be installed in accordance with the IAPMO Installation Standard IS - 8.
7. Pipes installed for sewer applications shall be installed in accordance with the IAPMO Installation Standard IS - 1.
8. Only approved fittings shall be used in the installation of these systems.
9. All pipes shall also be identified with the applicable ASTM standard number for its specific application and the following:
  - a. White colored pipes for water: Manufacturer's name "Pacific Cal", appropriate size, schedule, pressure rating, temperature rating, PVC 1120, "NSF-pw", UPC logo.
  - b. Brown colored pipes: Manufacturer's name "Pacific Cal", appropriate size, schedule, pressure rating, temperature rating, PVC 1120, "NSF-pw", ULTRAVIOLET RESISTANT PIPE, UPC logo.
  - c. Purple colored pipes: Manufacturer's name "Pacific Cal", appropriate size, SDR number, pressure rating, temperature rating, PVC 1120, NSF logo, Warning "RECLAIM WATER ONLY", UPC logo.
  - d. Pipes for sewer: Manufacturer's name "Pacific Cal", appropriate size, schedule, PVC 1120, "SEWER PIPE", ASTM D 3034, UPC logo.

## DISCUSSION

Current production samples of these products were examined, and test reports were reviewed by the Mechanical Testing Laboratory. The material and construction are equivalent to that prescribed by the Los Angeles Municipal Code in quality, strength, effectiveness, durability and safety.

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For this General Approval to be valid on any individual construction project in the City of Los Angeles, an engineer or inspector of the Department of Building and Safety must make a determination that all conditions of the General Approval required to provide equivalency have been met in the case of each construction project under consideration.

This approval is granted under Sections 94.301, 94.314.5, 705.1.2 & 605.13.2 & 705.7.2 , 94.603, 94.604, 94.715 and Table 1401.1 of LAPC, 2014 Edition.

Approved by:



Manouchehr Shahrestani  
Mechanical Testing Laboratory  
Permit And Engineering Bureau

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### **RR-5408: List of Pipe Schedules and Classes**

#### **PVC pipes for sewer applications:**

Type PSM (SDR 35) - Bell end or gasketed pipe - in sizes 4", 6", 8", 10", 12", 15", and 18"

Note: This pipe is also available factory perforated and may be installed where perforated PVC pipe is allowed by LAPC, 20014 Edition.

#### **PVC pipes for cold water applications:**

##### Plain End

Schedule 40 - ½", ¾", 1", 1-¼", 1-½", 2", 2-½", 3", 4" and 6"

Schedule 80 - ½", ¾", 1", 1-¼", 1-½", 2", 2-½", 3", 4" and 6"

Class 160 (SDR 26) - 1-¼", 1-½", 2", 2-½", 3" and 4"

Class 200 (SDR 21) - ¾", 1", 1-¼", 1-½", 2", 2-½", 3", and 4"

Class 315 (SDR 13.5) ½", 2", 3" and 4"

##### Bell End (Solvent Cemented)

Schedule 40 - ½", ¾", 1", 1-¼", 1-½", 2", 2-½", 3" and 4".

Class 315 (SDR 13.5) - 2-½".

##### Gasketed

Class 200 (SDR 21) - 2", 2-½", 3", 4", 6" and 8".