

IAPMO RESEARCH AND TESTING, INC.

A NON-PROFIT CORPORATION

5001 E. Philadelphia Street Ontario, CA 91761 (909) 472-4100 Fax (909) 472-4250

CRT LABORATORIES (CALIFORNIA RESIN TESTING)

of

ORANGE, CALIFORNIA

is recognized by IAPMO Research and Testing, Inc. as an independent Testing Laboratory. IAPMO Research and Testing, Inc. agrees to accept test reports prepared by the Laboratory in accordance with the policies and procedures agreed to by the laboratory in the Laboratory Recognition Agreement. The Laboratory has satisfactorily demonstrated its compliance to ISO/IEC 17025-2005 as referenced in Section 4.3 of ISO/IEC Guide 65, and has been verified as capable of performing tests in the following categories:

•Backflow Preventers •Cement/Slider/Joint Compound •Electrical •Metal Fixtures •Metal Pipe/Fittings •Mfg'd Housing/ RV Components •NSF 61.9 •Plastic Fixtures •Pipe Wrap Tapes/Coatings •Plastic Cell Class Testing •Septic Systems •Plastic Pipe Fittings •Pool/Spa Components/Fittings •Shower Pan Liners •Valves/Faucets

IAPMO Research and Testing, Inc. will accept from the Laboratory only reports of testing conducted under the direct control and supervision of employees of the Laboratory.

This Laboratory Listing is valid beginning 3/31/2016 and expires after 3/31/2017. This recognition is subject to the conditions set forth by IAPMO Research and Testing, Inc. and is not to be construed as approval, recommendation, endorsement or guarantee by IAPMO Research and Testing, Inc. of the qualifications or services offered by the Laboratory. Any alteration or falsification of this certificate may constitute grounds for termination of the Laboratory Recognition. Reproduction of this certificate, in whole or in part, for advertising purposes without the expressed written permission of IAPMO Research and Testing, Inc. is strictly prohibited.

Russ Chaney

Russ Chaney
Chief Executive Officer

Jin Luo

Jin Luo
Sr. Vice President of Laboratory Recognition

IAPMO RESEARCH AND TESTING, INC.

LABORATORY LISTING

APPENDIX "A"

CRT LABORATORIES (CALIFORNIA RESIN TESTING)
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Valid Beginning: 3/31/2016

Void After: 3/31/2017

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APPLICABLE STANDARDS BY CAPABILITIES:

BACKFLOW PREVENTERS

ASME A112.14.1-2003 (R08)

CEMENTS/SOLDER/JOINT COMPOUNDS:

ASTM B 32-2008(sections 8.1, 8.1.1, 8.1.2, 8.2, 8.3.1, 8.3.2, 13.1, 13.1.1, 13.1.2, 13.1.3, 13.3.1, 13.3.2, 13.3.3, 13.3.4, 13.3.5), B813-2010, D2235-2004(R2011), D2564-2012, D2672-1996a (R2009), D2855-96 (R2010), D3122-1995 (R2009), D3212-2007, F656-2010

ELECTRICAL:

UL 651-1995

MANUFACTURED HOUSING/RV COMPONENTS:

IAPMO PS 42-2013, PS 54-2011a (Except Section 7.4), PS 94-2012, PS 95-2001, PS 64 -2012ae1(except 4.1.1 and 6.4), CSA B272-93 (R008)

METAL FIXTURES:

ASME A112.6.4-2003 (R08), ASME A112.18.6-2009, ASME A 112.6.3-2001(R2007), ASME A112.6.7-2010 (Except Section 5.2 Specular Gloss)

METAL PIPE/FITTINGS:

ASME A112.18.6-2009, ASTM C 1173-2010e1 (except section 9.1.4), ASTM F 1807-2012 (except 5), ASTM F 2306-2011 (except section 7.8), ASME A112.18.2-2011/ CSA B125.2-11 (except sections: 5.2 & 5.4), IAPMO PS 120-2004 (except 4.1), ASTM C 1053-2000 (R2010), ASTM C 1460-2012, ASTM F 1948-2011.

PIPE WRAP TAPE/COATINGS:

IAPMO PS 37-1990 (except dielectric breakdown, High Humidity Insulation Resistance)

PLASTIC CELL CLASS TESTING:

Fingerprinting material using infrared and differential scanner

ASTM D 1248-1984, ASTM D 1784-2011, ASTM D3350-2014, ASTM D3965-2011, ASTM D4101-2014 (except section 13.1.7), ASTM C 564-14 (except 9.7)

PLASTIC FIXTURES:

ANSI Z124.5-2013, IAPMO PS 94-2012, PS 90-2012e1 (except 4.1.2), CSA B45.5-11/ANSI Z124-2011(except 5.10 and 5.12), ANSI Z124.8-2013 (except 5.4, 5.6, 5.7), ASME A112.6.4-2003(R08) , ASME A112.6.3-2001(R2007) , ASME A112.18.6-2009, ASTM D5630-2013

PIPE WRAP TAPES\COATINGS:

AWWA C210-2007, AWWA C213-2007, IGC 189-2008 (Except section 4.1), ASTM F1743-08

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APPLICABLE STANDARDS BY CAPABILITIES:

PLASTIC PIPE/FITTINGS:

ASME A112.18.6-2009, ASTM D1527-1999(R2005), D 1785-2012, D2104-2003, D2239-2012, D2241-09, D2466-2006, D2467-2012, D2468-1996a, D2513-2012ae1, D2661-11(CSA, CAN/CSA-B181.1-M90), D2665-2012(CSA, CAN/CSA-B181.2-11), D2680-2001 (R09), D2729-11, D2737-2003, D2751-2005, D 2846-2009be1, D3034-2008(CSA, CAN/CSA-B182.2-M90), D3212-07, D3311-11, F405-2005, F409-2012, F437-09, F438-09, F439-09, F441-09, F442-2012, F628-2012e1 (Section 6.4.4), F667-2012, F794-2003 (R09), F810-2012, F876-2010e1, F 877-2011a, F 891-2010, F 949-2010, F 1412-2009, F 1673-2010, F 2158-2008;ASME A112.18.2-2011/ CSA B125.2-11(except sections: 5.2 & 5.4), A112.14.1-2003(R08) ,A112.6.4-2003 (R08),A112.6.3-2001(R2007), IAPMO Z1033-2013, PS 51-2013, PS 90-2012e1 (except 4.1.2), PS 94-2012, AWWA C900-1997 (pipe sizes through 8"),IAPMO IGC 120-1998a, IAPMO IGC 224-2009, ASTM F 1924-2012, NSF 14-2011

POOL/SPA COMPONENTS/FITTINGS:

IAPMO Z1033-2013

SEPTIC SYSTEMS:

IAPMO Z1000-2007, IAPMO IGC 219-2005, IAPMO IGC 262-13 (Except Section 4.4), IAPMO PS 63-2005, IGC 276-2011 (Except section 6.1)

SHOWER PAN LINERS:

ANSI A118.10-R2011 (except M-4.1), ASTM D 4068-2009 (except 14.4),

VALVES/FAUCETS:

ASSE 1016-2011/ ASME A112.1016-2011/CSA B125.16-11 (Except sections 4.6, 4.7, 4.8 and 4.9), ASSE 1014-2005, ASME A112.18.1-2012/ CSA B125.1-12(except sections: 5.2, 4.9 Toxicity, 4.13), (CSA, CAN/CSA-B70-M91)