

Standard Operating Procedure PVC and CPVC Bonder Performance Qualification

SOP #: 5.041 Rev. 4

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Approval

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Revision History

Revision #	Description of Change	Effective Date	DCR#
2	Modifications	8/5/03	03048
3	Modifications	3/6/12	10014
4	Modifications	11/25/2014	14009
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1 Purpose

1.1 To establish a standard procedure for PVC and CPVC bonder performance qualification.

2 Scope

2.1 This procedure applies to all bonders performing solvent cemented joining of PVC and CPVC pipe and fittings.

3 Responsibility

- 3.1 Therma Quality Control Examiner (QCE) shall administer this procedure and verify that the bonders on the job have satisfied criteria herein.
- 3.2 Therma General Foreman (GF) is responsible for ensuring certified bonder(s) is/are performing tasks.

4 Reference

4.1 ASME Code 31.3 – process piping – latest edition.

5 Procedures

- 5.1 Following procedures in SOP 5.040 bonder shall make a socket joint (elbow to pipe) test coupon. Test coupon size is determined by the largest size to be joined in the PVC/CPVC fabrication assembly:
 - 5.1.1 When the largest size to be joined is NPS 4 or smaller, the test coupon shall be 4".
 - 5.1.2 When the largest size to be joined is larger than NPS 4, the size of the coupon shall be 4" or 25% of the largest piping size to be joined, whichever is greater.

6 Examination and Acceptance Criteria

- 6.1 Quality Control Examiner first examines the test coupons visually (OD visual). Any gaps in the joining cement around the pipe/fitting interface will cause immediate rejection of the test coupon.
- 6.2 If test coupon is visually acceptable Quality Control Examiner will retain it for 24 hours to allow for full cure. After 24 hours the test coupon shall be halved longitudinally.



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- 6.2.1 One of these halves shall be pried apart for joint surface examination by the Quality Control Examiner. Both, the pipe and the fitting, shall exhibit completely dull joint surfaces. If joint surfaces show spots and/or shiny channels the test coupon will be rejected.
- 6.2.2 Following a failed qualification coupon the bonder shall prepare and make a new bonding performance qualification test coupon following procedures as per SOP 5.040.
- 6.2.3 When test coupon is accepted based on OD visual examination and destructive test visual examination 24 hours later, Quality Control Examiner fills out and signs a Bonder Performance Qualification form FN 5.041.1 for the job file.

7 Requalification

- 7.1 Renewal of a bonding performance qualification is required when:
 - 7.1.1 Bonder has not used the specific bonding process for a period of 3 months or more.
 - 7.1.2 There is specific reason to question the individual's ability to make bonds that satisfy the prescribed workmanship requirements.