



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

Section No:	MS H-12
Page No.:	1 of 5
Issue Date:	01/12/17
Superseded Date:	03/01/16

GASKETS AND SEALANTS

ABS-to-PVC Solvent Cement

1. SCOPE

This specification covers the plastic pipe solvent cement used for making joints with Acrylonitrile Butadiene Styrene (ABS) plastic pipe and Poly Vinyl Chloride (PVC) plastic fittings.

2. APPLICABLE DOCUMENTS

- 2.1 ASTM International (ASTM) D-1784, "Standard Specification for rigid Poly Vinyl Chloride (PVC) Compounds and Chlorinated Poly Vinyl Chloride (CPVC) Compounds."
- 2.2 ASTM International (ASTM) D-2513-99, "Specification for Thermoplastic Gas Pressure Pipe, Tubing and Fittings."
- 2.3 ASTM International (ASTM) D-2564, "Specifications for Solvent Cements for Poly Vinyl Chloride (PVC) Plastic Pipe and Fittings."
- 2.4 ASTM International (ASTM) F-656, "Standard Specification for Primers for Use in Solvent Cement Joints of Poly Vinyl Chloride (PVC) Plastic Pipe and Fittings."
- 2.5 Southwest Gas Material Specification H-11, "ABS to PVC Solvent Cement."
- 2.6 Southwest Gas Material Specification B-13, "Pipe Fittings, Plastic Fittings."
- 2.7 United States Department of Transportation (DOT), Code of Federal Regulations (CFR), Title 49, Part 192, "Transportation of Natural and Other Gas by Pipeline; Minimum Safety Standards."

NOTE: Unless otherwise specified, the editions of the above documents incorporated by DOT 49 CFR 192 are applicable. Documents not incorporated by DOT 49 CFR 192 will be the most recent edition.

3. TERMINOLOGY

3.1 General

- 3.1.1 "Southwest Gas," "Southwest" or "SWG" wherever used in this specification and other related documents will refer exclusively to Southwest Gas Corporation.



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3. TERMINOLOGY (Cont'd)

3.1.2 The terms “approved,” “as approved,” “satisfactory,” “as directed,” “or equal” or other similar terms wherever used in this specification and other related documents will mean “as determined by Southwest Gas,” unless specifically stated otherwise.

3.1.3 “Product Information Package” or “PIP” wherever used in this specification and other related documents will mean the required technical product information that a manufacturer must submit to SWG to determine if the product is suitable for use by SWG, unless specifically stated otherwise.

4. MATERIALS AND MANUFACTURING

4.1 The ABS to PVC solvent cement shall meet the requirements of ASTM F-2564.

4.2 The solvent cement must be compatible with natural gas.

5. PERFORMANCE REQUIREMENTS

5.1 The solvent cement shall meet with the requirements of ASTM D-2513.

5.2 The solvent cement must be compatible with Type 1210 ABS and PVS fittings made of classes 12454-B, 12454-C, 11443-B and 14333-D PVC plastic material.

5.3 The plastic pipe solvent cement shall be a clear, light bodied, fast-setting, high-strength solvent cement formulated for joining ABS pipe to PVC fittings.

5.4 The solvent cement must set up within 45 minutes cure time on 2", 1-1/4", and 1/2" PVC fittings to allow pressure testing at distribution pressure.

5.5 The ABS to PVC solvent cement shall have the physical properties as listed in Table H-12.1.

Physical Properties	Requirement
Color	Clear
Resin	Virgin PVC homopolymer
Specific Gravity	0.906 ± 0.006
Viscosity	90-150 cps at 73°F
Shelf Life	Minimum two (2) years in unopened cans

TABLE H-12.1



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6. DIMENSIONS AND TOLERANCES

The 3/4" dauber will be for use for up to 1-1/4" pipe and the 1-1/2" dauber will be for use on larger pipe.

7. INSPECTION

- 7.1 Successful review of the PIP as well as any future reference by SWG to the Seller's part number or internal code number in any future contract or purchase, will mean only that no conflict with the specification was found and will not relieve the Seller from meeting all the requirements of this specification.
- 7.2 SWG retains the option to inspect the manufacture and testing of any and all materials, products or systems supplied to this specification at the manufacturer's facility.
- 7.3 Southwest will have the right, at their option, to reject any material, which fails to conform to this specification. Any such rejection may take place at the manufacturer's facility; the supplier's warehouse or any subsequent delivery location, before or after SWG assumes possession. Notice of the rejection will be made promptly to the supplier by SWG. The defective product will be replaced or returned for credit at the manufacturer's expense.
- 7.4 Any changes in manufacturing of previously approved materials, products or systems described in this material specification for sale to SWG, must be approved by SWG's Engineering Staff. **Failure to obtain Southwest approval may be cause for rejection and disqualification as an approved supplier.**

8. CERTIFICATION

The manufacturer's or supplier's certification shall be furnished to Southwest. This certification shall state that samples representing each lot have been manufactured, tested and inspected in accordance with this specification and that requirements have been met. When requested or specified in the purchase order or contract, a report of test results will be provided.

Upon the request of Southwest, the certification of an independent third party indicating conformance to the specification may be considered at Southwest's expense.



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9. SAFETY DATA SHEETS

In accordance with law, the seller shall supply Safety Data Sheets for all applicable items supplied under this specification to the following:

- 1) The Receiving Location
- 2) Engineering Staff
- 3) Southwest Gas Corporation
Corporate Safety
Mail Station LVA-120
P.O. Box 98510
Las Vegas, NV 98193-8510

10. PRODUCT MARKING

- 10.1 All containers shall be marked with the manufacturer's name or trademark.
- 10.2 Each container shall be labeled with material safety information as required by the Federal Hazardous Substances Labeling Act.
- 10.3 The bottom of each container shall be stamped with the manufacture date.
- 10.4 A batch identification code shall be stamped on each container.
- 10.5 Each container shall be clearly labeled so the contents are readily identifiable.

11. PACKAGING AND PACKAGE MARKING

- 11.1 All products covered by this specification will be packaged to prevent damage and/or leakage during shipping.
- 11.2 A 3/4" dauber will be supplied for 1-1/4" pipe and a 1-1/2" dauber will be supplied for larger pipe.

12. STOCK CLASSIFICATION DESCRIPTION

SOLVENT, PLASTIC CEMENT, PINT CANS WITH SCREW CAP, FOR USE ON ABS PIPE IN ARIZONA ONLY