



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

Section No:	MS H-10
Page No.:	1 of 6
Issue Date:	03/01/16
Superseded Date:	02/23/15

GASKETS AND SEALANTS

PVC Solvent Cement and Cleaner

1. SCOPE

This specification covers the solvent cement and cleaner used for making joints with polyvinyl chloride (PVC) plastic pipe and fittings.

2. APPLICABLE DOCUMENTS

- 2.1 ASTM International (ASTM) D-2513, "Specification for Thermoplastic Gas Pressure Pipe, Tubing and Fittings."
- 2.2 ASTM International (ASTM) D-2564, "Specifications for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings."
- 2.3 Southwest Gas Material Specification, B-13, "Pipe Fittings, Plastic Fittings."
- 2.4 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.
- 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.



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4. MATERIALS AND MANUFACTURING

- 4.1 The solvent cement shall meet the requirements of ASTM D-2564.
- 4.2 The solvent cement shall have physical properties as listed in Table H-10.1.
- 4.3 The PVC cleaner shall have physical properties as listed in Table H-10.1.

Property	Solvent Cement	PVC Cleaner
Color	Gray	Clear
Specific Gravity	0.985±0.040	0.800±0.040
Viscosity	1600-3000cps@73°F	Water-thin
Maximum Volatile Organic Compound Emissions	4500G/L, per SCAQMD Rule 1168, Method 316A	650G/L, per SCAQMD Rule 1168, Method 316A
Shelf Life	Minimum 3 years in unopened container	Unlimited in unopened container

TABLE H-10.1

5. PERFORMANCE REQUIREMENTS

- 5.1 The solvent cement must be compatible with Classes' 12454-B, 12454-C, 11443-B and 14333-D PVC piping, Schedule 40 and Schedule 80.
- 5.2 The solvent cement must be compatible with natural gas.
- 5.3 The PVC cleaner must be compatible with PVC-to-PVC solvent cement.
- 5.4 The PVC cleaner must be compatible with PVC fittings made of classes 12454-B, 12454-C, 11443-B and 14333-D plastic material as specified in Southwest Material Specification SWG MS B-13.
- 5.5 The PVC cleaner must be able to remove grease, oil, and dirt from the surfaces of PVC pipe and fittings.
- 5.6 The joint initial set times and cure times shall be as in Table H-10.2.



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5. PERFORMANCE REQUIREMENTS (Cont'd)

Temperature Range During Assembly and Cure Periods °F	Initial Set Time		Cure Time	
	Pipe sizes 1/2" to 1 1/4" Minutes	Pipe sizes 1 1/2" to 2" Minutes	Pipe sizes 1/2" to 1 1/4" Minutes	Pipe sizes 1 1/2" to 2" Minutes
60 - 100	2	5	15	30
40 - 59	5	10	20	45
0 - 39	10	15	30	60

TABLE H-10.2

6. DIMENSIONS AND TOLERANCES

Daubers will be available in 3/4" and 1-1/2" sizes.

7. INSPECTION

- 7.1 Successful review of the Product Information Package (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 referenced in this specification that are sold to SWG.
- 7.3 SWG will make appropriate inspections and tests of any and all materials, products or systems supplied to this specification. SWG 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 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 the 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 SWG's approval may be cause for rejection and disqualification as an approved supplier.**



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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.

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. PACKAGING AND PACKAGE MARKING

- 10.1 All containers shall be marked with the manufacturer's name or trademark.
- 10.2 All products covered by this specification will be packaged to prevent damage and/or leakage during shipping.
- 10.3 Each container shall be labeled with material safety information as required by the Federal Hazardous Substances Labeling Act.
- 10.4 The bottom of each container shall be stamped with the manufacture date.
- 10.5 A batch identification code shall be stamped on each container.
- 10.6 Each container shall be clearly labeled so the contents are readily identifiable.



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11. STOCK CLASSIFICATION DESCRIPTION

SOLVENT PLASTIC CEMENT, LOW VOC, WITH SCREW CAP, FOR USE WITH PVC CLEANER FOR PVC PIPE.