

TECHNICAL SPECIFICATIONS

FORM P927



CERTAIN-TEED PRODUCTS CORPORATION
PIPE DIVISION

SPECIFICATIONS CLASSIFICATION:

Standard Purchasing Specification

T.C.O. REF. NO.	SPECIFICATION NO.	PAGE NO.:
3	539	1
SUPERSEDES: September 9, 1966 August 5, 1966		DATE OF ISSUE: June 4, 1971

DESCRIPTION:

Epoxy Resin for Epoxy Lining of CPC A/C Pipe

1. General1.1 Description

This specification describes the epoxy resin used in Epoxy Lining of Asbestos-Cement pipe. This epoxy resin is a liquid Bisphenol-A-epichlorohydrin type with an epoxide equivalent of 175-200. Other epoxy resins which meet the requirements of this specification and perform satisfactorily in service may also be included with proper authorization.

1.2 Use

This material is intended for use in a protective epoxy lining as the vehicle for the filler and hardener.

1.3 Lot Size

For sampling and inspection purposes, a lot is defined as the quantity of a single shipment of epoxy resin.

2. Requirements2.1 Special

All Epoxy Resin suppliers shall be approved in writing by the Technical Service Manager - Materials of CERTAIN-TEED Pipe and Plastics Group (P&PG). Any change in the source of the epoxy resin by an approved supplier must be authorized in writing by the Technical Service Manager - Materials before the end product may be supplied to CPC plants. When such a change is authorized, the change shall be recorded by date of manufacture. The manufacturer shall notify the Purchasing Department and Technical Service Department when such an authorized change is actually effected. After approval of the epoxy resin, the vendor will assign a proprietary number to the epoxy resin and all references to the product shall include this vendor number.

2.2 Manufacturer's Inspection

The manufacturer shall perform such inspection and testing that all defective material is removed from each shipment before shipment is made to CPC.

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SPECIFICATION NO.

PAGE NO.:

3

539

2

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2.3 Manufacturer's Control Data

The manufacturer shall maintain records of the control data on each batch of epoxy resin from which barrels are shipped to CPC. These records shall be such that when requested, the manufacturer shall be able to furnish a notarized statement that the requirements of this specification have been complied with for any given shipment.

2.4 Physical Characteristics

The physical characteristics shall be in accordance with the requirements as shown in Table A.

2.5 Chemical Characteristics

The chemical characteristics shall be in accordance with the requirements as shown in Table B.

2.6 Special Characteristics

When combined in the right proportions with the proper curing agent, the resultant material shall be in accordance with the requirements as shown in Table C.

3. Test Methods

The following tests will be conducted in accordance with the applicable test methods.

3.1 Physical

Color	ASTM D-1544
Density	TM-34
Viscosity	Brookfield Viscosimeter

3.2 Chemical

Epoxy Equivalent	ASTM D-1652
Pot Life	TM-32

3.3 Special

Chemical Resistance	TM-37
Adhesive Strength	TM-37

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4. Packaging and Marking

The epoxy resin shall be packaged in non-returnable fifty-five (55) gallon drums with a bung and bung vent on the top of the drum. The drum shall be lined to prevent deterioration of the epoxy resin.

Each drum shall be marked (stenciled to show vendor's name, Epoxy Resin Number, Manufacturer's Batch Number, Weight and CPC Order Number).

5. Acceptance and Rejection

CPC reserves the right to reject any lot, or lots, not conforming to the requirements of this specification. Such rejections or acceptance of lot, lots, or portions thereof shall not be limited to the time of shipment, but shall be made within 30 days of receipt of the shipment. In the event of a rejection, the vendor shall be notified and the reason for the rejections explained. The vendor shall be given the opportunity to inspect representative samples of the rejected materials in the Materials Laboratory, North Wales, Pennsylvania prior to final disposition. The vendor must express his desire to inspect rejected material within seven days after notification of the rejections and the physical inspection of rejected material must be performed within 30 days after the notification of rejection.

6. Addendum

As a corollary to the stated requirements of this specification, the manufacturers are entreated to become reasonably knowledgeable as to the conditions of successful usage of the Epoxy Lining so that they may employ their best technology to assist in providing Epoxy Resins which will perform satisfactorily the usage intended.

Table A

CTD015132

Color, Gardner Scale @ 25°C Max.	12
Weight, Lbs. per Gallon @ 25°C	9.6 to 9.7
Viscosity, Brookfield No. I Spindle @ 25°C	
Centipoises	12,000 to 14,000

Table B

Epoxy Equivalent	175-200
Molecular Weight	350-400
Shelf Life Min.	1 Year

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T.C.O. REF. NO.

SPECIFICATION NO.

PAGE NO.:

3

539

4

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DESCRIPTION:

Epoxy Resin for Epoxy Lining of CPC A/C PipeTable C

Pot Life @ 75°F. Minutes, Min.

20

Immersion Tests - ASTM C-541

Shall not gain or lose more than 0.4 percent when immersed
for 7 days or 0.9 percent when immersed for 30 days.

Adhesive Strength psi. Min.

200

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T.C.O. REF. NO.

3

SPECIFICATION NO.

Addendum 539

PAGE NO.:

1

SUPERSEDES: September 9, 1966

August 5, 1966

DATE OF ISSUE:

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DESCRIPTION:

Epoxy Resin for Epoxy Lining of CPC A/C Pipe

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1. General

This addendum is designed to show the special sampling plan employed as a means for conducting surveillance over the quality of the resin. This addendum also lists the approved vendors and their approved products.

2. Sampling

This material is shipped in fifty-five (55) gallon drums. If more than one batch is in the shipment, each batch must be sampled, in accordance with the following table. Each sample shall be one pint.

<u>No. of Drums of Each Batch in Shipment</u>	<u>No. of Samples Taken</u>	<u>Acceptable Defectives</u>	<u>Defectives Constituting Rejection Basis</u>
1-10	1	0	1
11-20	2	0	1
21-30	3	0	1
31-40	4	0	1
41-50	5	1	2

3. Inspection

On each sample selected, test for pot life in accordance with Standard Test Method 32.

4. Rejections

CTD015134

The following procedure shall be followed on all rejected materials.

4.1 Quality Control Headquarters and Technical Service Manager - Materials shall be notified and a sample of the defective material shall be sent to the Materials Laboratory, North Wales, Pennsylvania. This will be an aid in discussing the rejection with the vendor.

4.2 The Headquarters Purchasing Department shall be notified. They will issue instructions on how and when the shipment is to be returned.

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2

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Reichold Chemicals, Inc.
R.C.I. Bldg.
White Plains, New York

Preferred EPO-TUF 37-140

Celanese Resin Div.
Celanese Coating Co.
Louisville, Kentucky

EPI-REZ 510

Shell Chemical Company
P. O. Box 2463
Houston, Texas -77001

EPON 8280

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J.C. Taylor	[Signature]	[Signature]					[Signature]

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