

TECHNICAL SPECIFICATIONS

FORM P927



CERTAIN-TEED PRODUCTS CORPORATION
PIPE DIVISION

SPECIFICATIONS CLASSIFICATION

Standard Purchasing Specification

T.C.O. REF. NO.

1

SPECIFICATION NO.

521

PAGE NO.:

4

SUPERSEDES: K & M Co. M. S.

Mar. 12, 1959 - Dec. 18, 1961

DATE OF ISSUE:

May 21, 1971

DESCRIPTION:

Hardener for A/C Fittings Adhesive Section B.

A. GENERAL

Description: This specification describes the hardener used in adhesive for fabricating A/C fittings. This hardener is an aliphatic amine type which when blended with the specific amounts of the proper epoxy resins and fillers at a min. temp. of 60°F will form the required adhesive mass and shall be free of solvents, diluents or other additives. Diethylene triamine is the desired product. Other hardeners which meet the requirements of this specification and perform satisfactorily in service may also be included with proper authorization.

Safety Note:

Hardeners, in general, are considered toxic upon prolonged or repeated exposure. The use of protective clothing & gloves combined with frequent washing of hands & face is mandatory.

B. USE

This material is intended to be the activating agent for the curing of the epoxy resin which in proper proportion and admixed with epoxy resin and fillers form a structural adhesive suitable for fabricating A/C fittings.

C. LOT SIZE

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

D. REQUIREMENTS1. Special

All hardener suppliers shall be approved in writing by the Technical Service Manager - Materials of CERTAIN-TEED Pipe and Plastics Group. Any change in the hardener composition or properties by an approved vendor must be authorized in writing by the Technical Service Manager - Materials before the end product may be supplied to P & PG Plants. When such 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 hardener the vendor will assign a proprietary number to the hardener and all references to the product will contain this information.

PREPARED BY:

APPROVED BY:

R & D

MFG.

SALES

I.E.

OTHERS

CONFIDENTIAL DOCUMENT - NOT TO BE DISTRIBUTED TO UNAUTHORIZED PERSONNEL

CTD015018

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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 P&PG.

3. Manufacturer's Control Data

The manufacturer shall maintain records of the control data on each batch of hardener that is manufactured for P&PG. 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.

4. Physical Characteristics

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

5. Chemical Characteristics

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

B. TEST METHODS

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

1. Physical

Color

ASTM D-1544

Density

TM - 34

Viscosity

Brookfield Viscosimeter

Refractive Index

Standard Commercial Refractometer

Boiling point

ASTM D86 Group 4

2. Chemical

Pot. Life

TM 32

CTD015019

F. PACKAGING and MARKING

Hardener shall be packaged in suitable containers, preferably in five

PREPARED BY:	APPROVED BY:	R & D	MFG.	SALES	I.E.	OTHERS
<i>[Signature]</i>	<i>[Signature]</i>	CDH	<i>[Signature]</i>			<i>[Signature]</i>

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gallon containers, with the vendor's number and date of manufacture marked on the outside of the containers. All invoices shall contain this information.

G. ACCEPTANCE AND REJECTION

P&G reserves the right to reject any lot of hardener which does not conform to the requirements of this specification. If any lot is rejected, the supplier shall be advised within 24 hours of rejection of lot and the reason for the rejection explained.

TABLE A

Physical Requirements

Color, Gardner Scale @ 25°C Max.	5
Density @ 25°C lb/gal.	7.95 - 7.99
Viscosity, Brookfield No. 1 Spindle @ 25°C	10 Centipoises - Max.
Refractive Index	1.486
Boiling Point	195°C min.

TABLE B

Chemical Requirements

Pot Life @ 75°F	35 Min.
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APPROVED BY:

R & D

MFG.

SALES

I.E.

OTHERS