PLAINTIFF'S EXHIBIT
CT-1573

TECHNICAL SPECIFICATIONS

CertainTeed

CertainTeed Corporation
Pipe and Plastics Group

SPECIFICATIONS CLASSIFICATION: A/C Standard Purchasing Specification		
T.C.O. REF. NO. 8	SPECIFICATION NO: 505	PAGE NO.: 1
SUPERSEDES: September 2, 1970	DATE OF ISSUE: APR 2 4 1979	

DESCRIPTION:

In-Plant Lubricant for Use With Asbestos-Cement Pipe

1.0 General:

1.1 Description

This specification is intended to describe the properties that are believed necessary for an effective lubricant.

These lubricants are intended for in-plant use and may be applied by wiping, brushing or spraying. While these lubricants are water soluble they are NOT TO BE DILUTED for the prebelling operation. They may be diluted for the wet coupling test operation. The primary function of the lubricants is to provide lubricity for ease in assembling units.

The lubricants shall be non-toxic and shall not impart any taste or odor to water in a pipe line. It shall not be injurious to natural or synthetic rubber compounds.

1.2 Use

Lubricant, as described in this specification, is intended to impart lubricity to a wet or dry joint of asbestos-cement pipe for ease of assembly in the plant. This requirement assumes that in the case of a wet joint, the joint will be assembled shortly after application of the lubricant. The lubricant shall also be used for the wet testing of A/C couplings.

1.3 Lot Size

For sampling and inspection a lot shall be defined as the number of containers (55 gallon drums) shipped on one order, received at one time, at one location, and referenced by a vendor compound number.

2.0 Requirements:

2.1 Special

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All lubricants shall be approved by the Technical Service Department of the Pipe Division of CertainTeed Corporation in writing and referenced by a compound number assigned by the vendor. After approval, no changes in this material may be made without authorization in writing, from the Technical Service Department of P&PG. When such a change is authorized, it shall be referenced by a new compound number. The manufacturer shall inform the Purchasing Department and Material Labortory Manager of P&PG when such an authorized change is placed in effect.

PREPARED BY:	APPROVED BY:	R & D	MFG.	SALES	I.E.	OTHERS

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2.2 Manufacturer's Inspection

The manufacturer shall perform such inspection and testing that all defective material is removed before shipment.

2.3 Manufacturer's Control Data

The manufacturer shall maintain records of the control data on each batch of lubricant that is manufactured for CertainTeed. 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.

In addition, the manufacturer shall twice a year, on samples selected at random from material manufactured for CertainTeed, conduct bacteria tests as defined in this specification. This report to be sent to the Material Laboratory Manager of P&PG.

2.4 Manufacturer's Affidavit

The manufacturer shall supply to the Material Laboratory Manager of P&PG an affidavit stating that the lubricant does not support bacteria or fungus growth. In addition, the bacteriological tests, as defined in this specification shall be performed twice a year and the results forwarded to the Material Laboratory Manager.

2.5 Physical Characteristics

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

2.6 Chemical Characteristics

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

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DESCRIPTION:

In-Plant Lubricant for Use With Asbestos-Cement Pipe

3.0 Test Methods:

3.1 Physical

3.1.1	Viscosity	Brookfield Viscosimeter
3.1.2	Color, Odor, Taste	TM 36
3.1.3	Shelf Life	TM 36
3.1.4	Freeze-Thaw	TM 36
3.1.5	Temperature Effect	TM 36

3.2 Chemical

3.2.1	Moisture	Method of test ASTM D460 Section 10.
3.2.2	Alkali	Free Fatty Acid Balance - Method of Test ASTM D460 Sections 16 through 18.
3.2.3	pH	Standard pH Meter
3.2.4	Bacteriological	This test is to be conducted by the vendors only and certified test results are to be sent to the Material Laboratory Manager. Brief description of test: One gram quantities of the lubricant are placed on the surface of agar plates, on which E. Coli and S. Aureus organisms have been previously seeded. The plates are then incubated for 24 hours at 35°C. The plates are then examined for inhibition of surface growth of the organisms. While there are many thousands of fungi and bacteria in the soil and water, it is believed that the organisms chosen are among the most numerous and are also representative of many strains of organisms.

4.0 Packaging and Marking:

The lubricant shall be packaged in 55 gallon drums. On each container shall be stencilled: Vendor's Name; Compound Number, P&PG's Order Number.

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5.0 Acceptance and Rejection:

P&PG reserves the right to reject any lot, or lots, not conforming to the requirements of this specification. Such rejection or acceptance shall not be limited to the time of shipment, but shall be made within 60 days of receipt of the shipment. In the event of a rejection, the vendor shall be immediately advised and the reason for the rejections explained. The vendor shall be given the opportunity to inspect representative samples of the rejected materials.

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In-Plant Lubricant for Use With Asbestos-Cement Pipe

The vendor must express his desire to inspect rejected material within seven days after notification of the rejections and the physical inspection must be performed within 30 days.

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 lubricant so that they may employ their best technology to assist in providing lubricants which will perform satisfactorily for the use intended.

Table A

Physical Requirements

Viscosity:	Brookfield, No. 5 Spindle 20 r.p.m. @ 77° ± 2°F, centipoise	1000-2600
Color		Clear
Taste, Max.		None
Odor, Max.		None
Shelf Life, Min.		1 Year
Freeze-Thaw Cycle, Min.		Return to normal viscosity without change.
Temperature Effect Viscosity:	Brookfield, No. 5 Spindle 20 r.p.m. @ 120° ± 2°F, centipoise	150-400

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CertainTeed CertainTeed Corporation Pipe and Plastics Group	SPECIFICATIONS CLASSIFICATION: A/C Standard Purchasing Specification		
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In-Plant Lubricant for Use With Asbestos-Cement Pipe

Table B

Chemical Requirements

Moisture Content, %	
Plants 56, 57, 58, 59, 60	
Min.	69
Max.	75
Alkali-Free Fatty Acid Balance	
Plants 56, 57, 58, 59, 60	
Alkali % Max.	0.0
Plants 56, 57, 58, 59, 60	
Free Fatty Acid % Max.	1.2
pH	8.5-10.0
Bacteria Growth	
E. Coli	Must inhibit growth.
S. Aureus	Must inhibit growth.

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JGH	MRS	HRH				OHS

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T.C.O. REF. NO.	SPECIFICATION NO:	PAGE NO.:
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SUPERSEDES: September 2, 1970		DATE OF ISSUE: APR 24 1979

DESCRIPTION:

In-Plant Lubricant for Use With Asbestos-Cement Pipe

NOT TO BE DISTRIBUTED TO VENDORS

1.0 General:

This addendum is designed to show the special sampling plan as a means for conducting surveillance over the quality of the incoming lubricants.

2.0 Sampling: _

2.1 Fifty-five (55) gallon drums

No. Drums in Shipment	No. of Samples	Acceptable Defectives	Defectives Constituting Rejection
1-5	1	0	1
6-10	2	0	1
11-15	3	0	1

Each sample shall be 1 pint. On each sample observe the color and check the viscosity by stirring. If there is any doubt on the viscosity, send a 2 quart sample to Material Laboratory Manager immediately for Viscosity Test. It is hoped that a fast, convenient Viscosity Test can be developed for the plants. Twice a year (December and June) send a 2 quart sample to the Material Laboratory Manager who will have all tests (except the bacteria test) performed.

3.0 Rejections:

The following procedure shall be followed on all rejected shipments.

3.1 Quality Control Headquarters and the Material Laboratory Manager shall be notified. If requested, a sample of the defective material shall be sent to the Material Laboratory Manager.

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

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T.C.O. REF. NO. 8	SPECIFICATION NO: 505 Addendum	PAGE NO.: 2
SUPERSEDES: June 22, 1971		DATE OF ISSUE: APR 2 4 1979

DESCRIPTION:

In-Plant Lubricant for Use With Asbestos-Cement Pipe

4.0 Approved Vendors

Concord Chemical Co., Inc.
17th and Federal Streets
Camden, New Jersey 08105
Approved Compound 67-C-102C

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Dermi Kleene
306 Oak Place
Brea, California 92621
Approved Compound 309

5.0 Compound Approval

It is believed that the present approved compounds are adequate for the purpose intended. However, there may be other compounds that are better or offer an economic advantage. If the plants are approached with a new lubricant they should obtain a one gallon sample along with the price (per lb. or gallon) and an affidavit stating the material will not support bacteria or fungus growth. Forward the sample and documents to the Material Laboratory Manager, who will do the evaluation, and either approve or reject the material.

Lubricant that is not approved by the Material Laboratory Manager may not be used.

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