



INTERNAL CORRESPONDENCE

PLAINTIFF'S
EXHIBIT

UC-999

322: Tape + Samples

CHEMICALS AND PLASTICS

P. O. BOX 8361, SOUTH CHARLESTON, WEST VIRGINIA 25303

To (Name) Mr. Frank W. Jeffe
Division Chemicals and Plastics
Location Cleveland Sales Office

Date September 9, 1977

Originating Dept. R/D

Copy to Mr. C. H. Carder
Mr. J. P. Carolan
Dr. D. L. MacPeck ✓
Mr. R. W. Martin
Mr. H. Mayfield

Subject Asbestos-Free Tape
Joint Formulas

Dear Frank:

Enclosed are several asbestos-free TJC formulations. The first formulation (2WDM29) is used in our laboratory for latex evaluation and is probably impractical for plant manufacture. This formulation contains Attagel 40 which interacts with CELLOSIZ[®] thickeners. The use of Attagel 40 should not be encouraged.

The other formulations are various recipe modifications of 2WDM29 that do not contain Attagel 40. One of these or a modified version may be suitable for your needs.

We commonly use ammonium hydroxide to speed hydration of TJC-500. A manufacturer may prefer to use another basic substance such as potassium carbonate. In any event, the thickener should be dispersed in the batch water before the base is added.

I have found that using a dispersant gives improved performance; however, many manufacturers do not use them. Other changes such as propylene glycol for ethylene glycol and mercuric preservatives for the organic preservative can be made without problems.

One-gallon samples of UCAR 131 and TPX-6304 are being forwarded to you separately. TPX-6304 can be substituted for UCAR 131 in these formulations. However, if a mercury or tin containing preservative is used, the TPX-6304 should be added after the preservatives and fillers have been added. A suggested procedure is to disperse the preservative in the batch water, blend in the fillers, and add the latex.

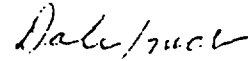
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Mr. Frank W. Jeffe
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We are currently working on other asbestos-free formulations. Once these have been optimized the information will be forwarded to you.

I hope this information will be of benefit to you.

Sincerely Yours,



W. D. Massey

WDM:mcb

Enclosure

A23399

TJC Formulation 2WDM29

<u>Ingredients</u>	<u>Parts by Weight</u>
Water	505.0
Ethylene Glycol	15.0
CELLOSIZE TJC-500*	5.0
UCAR 131	88.0
Daxad 30	10.0
Dowicil 75	1.0
Limestone #9NCS	780.0
Mica P-80-F	175.0
ASP-400	80.0
Attagel 40	10.0

* A small amount of NH_4OH is added after the CELLOSIZE has wetted to speed hydration.

Properties

Workability	8
Viscosity	545 B.U.
Room Temperature Adhesion	100%
Cracking Resistance	96%

A2340C

TJC Formulation 4WDM17

<u>Ingredients</u>	<u>Parts by Weight</u>
Water	421.0
TJC-500*	5.0
UCAR 131	87.0
Tamol 731	10.0
Limestone #9NCS	780.0
Mica P-80-F	175.0
ASP-400	80.0
Dowicil 75	1.0

* NH_4OH added after the TJC-500 has been dispersed.

Properties:

Workability	9
Viscosity, B.U.	570 B.U.
Room Temperature Adhesion	100%
Cold Room Adhesion	20%
Cracking Resistance	97%

A23401

TJC Formulation 4WDM43

<u>Ingredients</u>	<u>Parts by Weight</u>
Water	365.0
TJC-500*	5.0
UCAR 131	83.0
Tamol 731	10.0
Limestone #9NCS	750.0
Mica P-80-F	50.0
Talc TC-100	200.0
Dowicil 75	1.0

* 2g NH₄OH added after the TJC-500 is dispersed.

Properties

Viscosity	540 B.U.
Workability	9
R. T. Adhesion	92%
C. R. Adhesion	7%
Crack Resistance	100%

A23402

TJC Formulation 4WDM97

<u>Ingredients</u>	<u>Parts by Weight</u>
Water	345.0
Ethylene Glycol	10.0
TJC-500*	5.0
UCAR 131	83.0
Tamol 731	10.0
Limestone #9 White	750.0
Mica P-80-F	50.0
Talc TC-100	200.0
Dowicil 75	1.0

* NH_4OH added after TJC dispersed.

Properties

Viscosity	570 B.U.
Workability	9
R. T. Adhesion	23%
C. R. Adhesion	7%
Crack Resistance	88%

A23403