

# Interoffice Memorandum

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|--------------------------|-----------------------------------------------|---------------|----------------|
| TO (Name and Location)   | E. M. de la Garza, L. W. Hartman, C. C. Hobbs | DATE          | March 15, 1983 |
| FROM (Name and Location) | D. A. Chadwick                                | REFERENCE NO. | DAC-21-83      |

## Non-Asbestos Insulation Tapes and Tubings

The following is a summary of manufacturers information on the three products, selected at the February 7th meeting: Zetex, Thermo-Sil and Fabrisil.

- o PPG-Owens Illinois is the glass fiber supplier for both Zetex and Thermo-Sil. PPG-OI claims 1-1½% of fiber weight is sizing, wetting agents, and lubricating oils with starch being the main component. (PPG-OI would not release further information.)
- o Zetex adds an overspray for an additional 1% by weight. There are many components to the overspray. The only component name which was released to me was acrylic resin, but the amount present in the overspray was not released.
- o Thermo-Sil adds no oversprays.
- o Fabrisil claims only basic sizings on their material.
- o Outgassing of sizings, oversprays, lubricants, etc. should occur the first time the material is brought to 400-600°F.
- o All three products are made with DE size glass fibers which is much less irritating to the skin than the G size which is often used.
- o Fabrisil leachable chloride content is not known but the manufacturer specifies the material can be made to conform to the military specification (MIL-1-24244) which was drawn up to protect stainless steel pipes against chloride corrosion.
- o Thermo-Sil and Zetex both conform to MIL-1-24244. Thermo-Sil claims 2-3ppm leachable chlorides and Zetex 0.5ppm (values are questionable since both are made with the same glass fibers with the same sizings, etc. yet Zetex with additional components in the overspray yields less leachable chloride than Thermo-Sil which has no further coatings.)

Any of the three candidate products would be satisfactory to the SH&E Department since all three are made with DE size fibers. The information which manufacturers will release on sizings and oversprays is sketchy, but outgassing can be expected from all three products.

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# Interoffice Memorandum

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| TO (Name and Location)   | E. M. de la Garza, L. W. Hartman, C. C. Hobbs | DATE          | April 11, 1983 |
| FROM (Name and Location) | D. A. Chadwick                                | REFERENCE NO. | DAC-22-83      |

## Non-Asbestos Insulation Tapes and Tubings

In-house testing of substitute products for asbestos insulation tape and sleeving is completed. The meeting to discuss the products and to select one for use at the Tech Center will be April 20th at 9:30 a.m. in the South Conference Room.

If you need any additional information from the manufacturers before the meeting, I would be happy to contact them.

  
D. A. Chadwick

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# Interoffice Memorandum

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| TO (Name and Location)         | DATE           |
| L. W. Hartman, and C. C. Hobbs | April 25, 1983 |
| FROM (Name and Location)       | REFERENCE NO.  |
| D. A. Chadwick                 | DAC-26-83      |

## Non-Asbestos Insulation Tapes and Tubings

The meeting to select a non-asbestos insulation tape and tubing for use at the Tech Center was held on March 20th. The three candidate products were Fabrisil by HITCO, Thermo-sil by Garlock, and Zetex by Newtex. The Zetex product was the choice of those present at the meeting: L. W. Hartman, C. C. Hobbs, S. C. Hahn, R. F. Stubbeman, and D. A. Chadwick. The following is a summary of the reasons for choosing Zetex as the product to stock in the warehouse:

- Fabrisil is not manufactured to meet the military specification to protect stainless piping against chloride damage except by special request. Zetex and Thermo-sil are always manufactured to meet this specification.
- The cost of the Zetex product line was lower than the Thermo-sil product line overall for tape 1 x 1/16 and tubing 1/4, 3/8, and 1/2 x 1/16 thick.
- All three products met health requirements. Zetex and Thermo-Sil were tested and both met laboratory and engineering requirements to 200°C. Fabrisil was not tested.

  
D. A. Chadwick

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