PLAINTIFF'S EXHIBIT UC-1343

TECHNICAL SERVICE REPORT
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Metals Division
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Date: July 10, 1978

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Report No. 2224-25

DETERMINATIONS FOR ASBESTOS IN TAPE CAULK PRODUCTS

J. W. Mortell, Detroit, Michigan requested analyses for asbestos in competitive tape caulk product manufactured by Stanley Tool Company and W. J. Dennis and Company. The tape compounds were individually immersed in acetone and toluene. Acetone tended to soften the matrix without attacking the organic fiber present. Both compounds were soluble in toluene. However, the toluene appeared to dissolve the organic fibrous material as well.

The W. J. Dennis and Company caulking material was found to contain very long organic fibers. The caulk was softened with acetone and residual fiber was removed for microscopic examination (refer Figures 1 and 2). The material had the appearance of natural fiber; however, its dispersion staining colors (blue, magenta and golden yellow) and extinction properties in polarized light were more indicative of a synthetic fiber.

The tape caulk was also dissolved in toluene and residual materials examined under polarized lights. Fibrous material having both the appearance and optical characteristics of asbestos were detected (refer Figures 3 and 4). This fibrous material was concluded to be chrysotile, probably of a Canadian 7 variety.

Two types of fibrous material were also detected in the Stanley product. There was a small amount of very long synthetic fiber having dispersion colors blue and blue-green (refer Figure 5). The other type of fiber was concluded to be a Canadian chrysotile asbestos (refer Figures 6 and 7).

In summary both tape caulk products were found to contain organic fibrous material, however, dissimilar in appearance and optical properties. Fibrous material similar to Canadian asbestos both in appearance and optical properties were also found in both tape products. These findings are based on microscopic observations and as such, are not conclusive by definition. However, asbestos has rather unique properties both physically and optically and is usually distinctive by comparison to other fibrous materials.

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W. J. DENNIS AND COMPANY
(Fibrous Material in Tape Caulk)

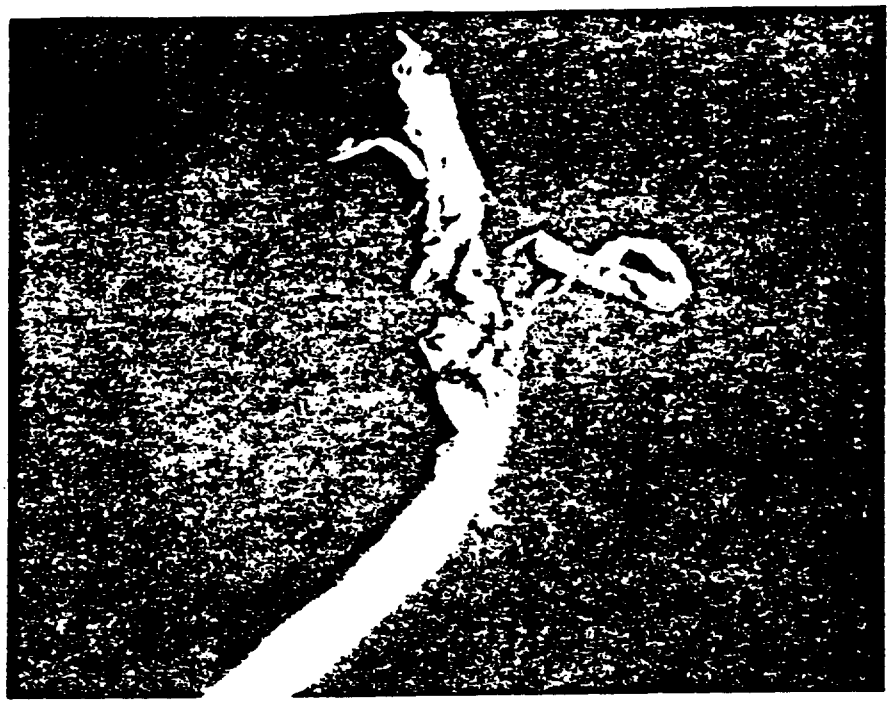
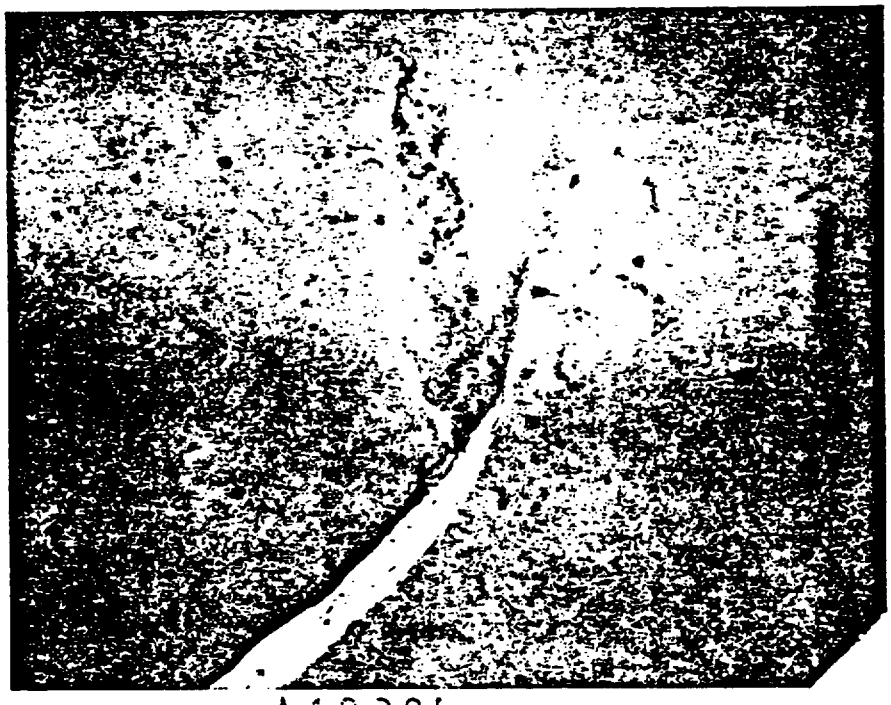


Figure 1 - Photo 1, Area 1, 100X Magnification
Crossed Polar Light Field, Acetone Dispersion



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Figure 2 - Photo 2, Area 1, 100X Magnification
Differential Interference Light Microscopy, Acetone Dispersion

W. J. DENNIS AND COMPANY
(Fibrous Material in Tape Caulk)

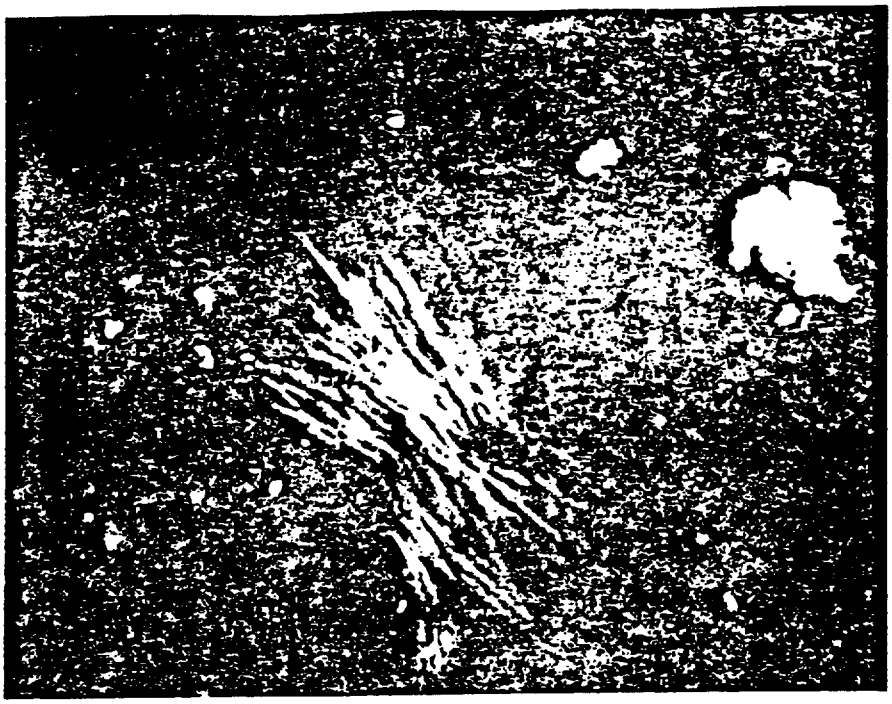


Figure 3 - Photo 3, Area 2, 1000X Magnification
Crossed Polar Light Field, Toluene Dispersion



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Figure 4 - Photo 4, Area 3, 400X Magnification
Crossed Polar Light Field, Toluene Dispersion

STANLEY TOOL COMPANY
(Fibrous Material in Tape Caulk)



Figure 5 - Photo 5, Area 1, 100X Magnification
Cross Polar Light Field, Acetone Dispersion

STANLEY TOOL COMPANY
(Fibrous Material in Tape Caulk)



Figure 6 - Photo 6, Area 2, 400X Magnification
Crossed Polar Light Field, Acetone Dispersion

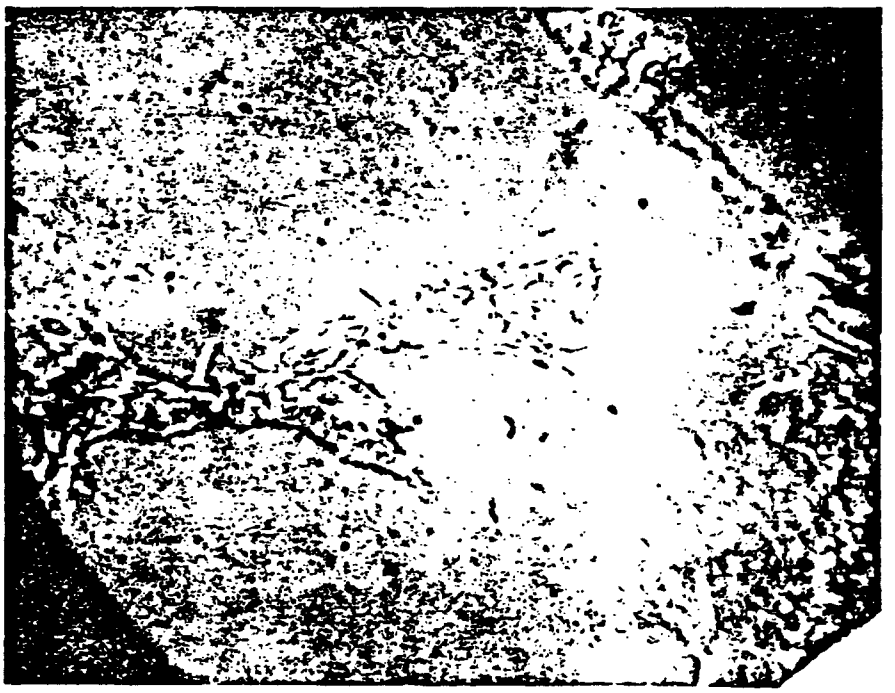


Figure 7 - Photo 7, Area 2, 400X Magnification Differential
Interference Light Microscopy, Acetone Dispersion