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Hydrocarbon Resins

PLAINTIFF'S EXHIBIT
Union Carbide 55

MEMORANDUM TO: Dr. F. L. Steahly

FROM: E. G. Caflisch

DATE: April 8, 1963

SUBJECT: Hydrocarbon Resins - Visit by Mr. Norman Setter to Discuss Coalinga Asbestos on April 3, 1963.

SUMMARY

Great interest was indicated in the use of light-colored prepolymers as binders for Coalinga asbestos. While four factorially designed samples will be sent at a later date, Mr. Setter asked for and will be sent a single sample as soon as it can be prepared. Equipment is being prepared to test this and the Prepolymer U-311 which has already been sent. A sample of E Cut of Unsaturate Oil will also be sent to Mr. Setter.

DISCUSSION

Mr. Norman Setter of Union Carbide Nuclear Company visited with Dr. F. L. Steahly, Mr. W. B. Lanham, Mr. C. W. Schersten and the author on April 3, 1963. Mr. Setter reported that the sample of Prepolymer U-311[1,2,3,4] had been received and that a roll mill and an extruder were being obtained to enable them to blend and process the mixtures of prepolymer and Coalinga asbestos at elevated temperatures (probably below 100°C.). Mr. Setter was shown a sample of 1 part Prepolymer U-311 and 2 parts Coalinga asbestos, which had been blended for the author on a roll mill and then pressed (about 3,000 psi) to a sheet about 0.06 inch thick (both operations at room temperature). He suggested that flexural strength tests, from which the modulus of elasticity could be calculated, would be the most meaningful tests on samples of this material after they had been cured under various conditions. Notched- and unnotched-Izod impact tests would give additional information. Mr. Setter was not sure whether the asbestos served any purpose other than as a filler in the pipe they make.

Sufficient work had not been done at Tuxedo to indicate that the viscosity of the Prepolymer U-311 is too high; however, it was suggested that E Cut of Unsaturate Oil (U-300) might be used in place of the prepolymer if a lower viscosity is desirable. A lower initial curing temperature would probably be required because of the lower nonvolatiles content. A five-gallon sample of E Cut will be sent to Tuxedo for testing.

Mr. Setter indicated great interest in the light-colored prepolymers, of which four one-gallon samples are to be sent to Tuxedo. These might be used for low-cost light-colored asbestos building materials. While additional work will be required before the factorially designed set of four samples can be prepared, the interest warrants the shipment of a single sample as soon as it can be prepared during the next few weeks.

A market survey by Mr. Setter on the use of asbestos in building materials is under way. Eleven sheets of information which he had collected

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[1]Memorandum, February 18, 1963.
[2]Letter to Mr. H. F. Reichard, February 19, 1963.
[3]Memorandum, February 19, 1963.
[4]Memorandum, March 7, 1963.

are attached to the file copies of this memorandum. The deposit of Coalinga asbestos has an area of 17 square miles and appears to be over 1,000 feet thick. At the present world consumption of asbestos this would be a 400-year supply. The structure of asbestos was briefly discussed. Dr. Steahly suggested that Mr. Setter present a seminar on asbestos during his next visit to Charleston.

EGC:smr

cc: Mr. B. M. Fonville
Mr. G. W. Harris
Mr. R. S. Hovey
Mr. R. G. Keister
Mr. W. B. Lanham
Dr. J. V. Murray, Jr.
Mr. S. E. Parrish
Mr. R. J. Rasmussen
Mr. R. L. Readshaw
Mr. J. B. Reid
Mr. C. W. Schersten
Mr. C. H. Shields
Mr. J. J. Toslosky
Mr. G. A. Trigaux
Mr. D. R. Vredeveld

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