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PLAINTIFF'S EXHIBIT UC-136

CHEMICALS AND PLASTICS

P. O. BOX 579, NIAGARA FALLS, NEW YORK 14302

To (Name) Messrs. R. E. Byrne
W. L. Carrick
F. D. Dexter
H. B. Rhodes
J. A. Riddle
J. L. Myers
Copy to N. J. Setter
W. S. Young

Division

Location

Date July 8, 1968

Originating Dept. Research and Development Department

Answering letter date

Subject Annual ASTM Meeting
D-30: Sub III Committee
San Francisco, Calif.
6/24-28/68

Gentlemen:

As of this meeting, the D-30 Committee, "High Modulus and Inorganic Fibers" has been reorganized as the "Composite Committee." Inasmuch as these fibers are functional primarily in composites, this restructuring is in line with the work of the Committee. Sub-Committees will be similar to the previous Subs and Sub III remains as the "Asbestos and Other Natural Occurring Fibers." Bill Dresher, who was formerly chairman of Sub-Committee I "Editorial and Definitions" is now the Vice Chairman of the D-30 Committee.

Sub III met on 6/27 and 6/28 and reviewed the efforts of the Task Forces. The Effective Surface Areas Task Group submitted a tentative method of test for approval by Sub III. The test was approved and submitted for letter ballot by the D-30.

The Rotap Sieve Test Task Group reported little or no effect as to the type of base used on the apparatus. The length of push and the weight of hammer were found to be critical, and specifications will have to be written. The Sub-Committee has asked all members who possess a Rotap sieve to submit the weights of the hammer to:

Jim Gilmore
Ruberoid Corp.

A mean weight will be selected for the tests with reasonable tolerances.

The Definitions Task Group, of which I am a member, received approval of the Sub-Committee for the set of definitions attached. I believe these definitions to be in the best interest of UCC because we were able to include the ultimate fibril as a definition of a whisker. This should be of particular significance in view of the restructuring of D-30.

Under new business, proposals were made to review the magnetic rating test and the color (brightness) test. Both of these are of interest to UCC and, if possible, we should be represented on the Task Group. These groups will probably be selected at the next meeting.

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The final day of the meeting (6/28/68) was a joint effort of D-30 and D-20 and consisted of a symposium on "Interfaces in Composites." The titles of the papers presented are also included in the attachments. These papers are all to be published in the near future, and as an attendee, I should receive these at that time. As they become available, they will be circulated to all interested parties.

I also tentatively gave my resignation to the Sub-Committee, but before I make it official, I would recommend that someone from the Asbestos Group be my replacement. As soon as one is appointed, I will tender my resignation and submit the name of my replacement.

The next meeting of Sub III is scheduled for October 22-25, 1968 in Boston. Complete details usually arrive about 2 months prior to the meeting.

Very truly yours,

R. G. Woolery

RGW/bsn
Attach.

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Tentative Definitions

of

Terms Relating to Asbestos

Recommended by the Definitions Task Group

Subcommittee III

Committee D-30 on High-Modulus Fibers and their Composites

American Society for Testing and Materials

Sixth draft

27 June 1968

Printed at Q.A.M.A. Laboratory
University of Sherbrooke

A17086

Tentative Definitions of Terms Relating to Asbestos [1]

ASTM Designation: ____

Issued, 196_ [2]

Indexing Terms: definitions
asbestos
terms

Asbestos Fiber - Any asbestiform material that fits the definition of fiber and is composed of fibrils in predominantly parallel orientation. Common usuage also designates a collectivity of asbestos fibers as Asbestos Fiber.

Bundle - Refers to a comparatively heavy pencil which may also be partially crushed or fiberized.

Cross-fiber - Asbestos fiber which originates from veins or seams in which fibers are oriented predominantly at right angles to the plane of the vein or seam.

Crude Asbestos - Hand cobbed cross-vein asbestos in its natural or unfiberized form.

Crudiness - The degree to which an asbestos fiber is crudy.

Crudy - The quality of milled asbestos fiber with relatively low specific surface area and degree of fiberization, containing an appreciable portion of pencils and bundles. This is derived from the term crude asbestos.

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Crudy Bundle - Synonymous with bundle

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Fiber - Any material in a form such that it has a minimum length to average maximum transverse dimension of 10 to 1, a maximum cross sectional area of 7.85×10^{-5} in.^{2} (5.06×10^{-2} mm^2) {corresponds to a circular cross section of 0.010 in. (0.254 mm) in diameter} and a maximum transverse dimension of 0.010 in. (0.254 mm).

Fiber Spicules - Rod-like pieces composed of asbestos fibers in fascine arrangement, with undisturbed natural relative positions, of sufficient number to impart rigidity. If dimensions exceed 1 cm (0.4 in.) in length and 1 mm (0.04 in.) in transverse dimension, the term pencil may be used.

Fibril - Any asbestiform material that fits the definition of a whisker.

Fines - The finest class of material produced by particle size classification of asbestos fiber by any accepted test method. Common usage in the abestos industry has defined fines as that which passes through the finest mesh used in ASTM Method D 2589, Bauer McNett Wet Classification of Asbestos Fiber.

Loftiness - The measure of an asbestos fiber's loose specific volume. This is related to the dry bulk density.

Milled Asbestos - All grades produced by the mechanical treatment of asbestos ore.

Milling - A process by which asbestos ore is treated mechanically to produce grades of asbestos fiber with desired properties.

Non-fibrous Spicules - Acicular particles resembling fiber spicules, composed of non-fibrous, or semi-fibrous minerals such as picrolite.

Open - The quality of an asbestos fiber with relatively high specific surface area and degree of fiberization, which does not contain an ap-

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ACL Doc 15408 · Page 5 of 7 asbestosclaims.law/library/15408/5

preciable portion of pencils and bundles.

Pencil - Large fiber spicule of generally uniform diameter throughout its length, which can be fiberized readily.

Slip-fiber - Asbestos fiber which originates from veins or seams in which fibers are oriented predominantly parallel to each other and to the plane of the vein or seam.

Spelk - Synonymous with pencil.

Whisker - Any material that fits the definition of fiber and is a single crystal.

Note 1. -- Whisker is used incorrectly to designate a flocculus, or tuft, occurring as a contaminant among short asbestos fibers.

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ACL Doc 15408 · Page 6 of 7 asbestosclaims.law/library/15408/6

SYMPOSIUM ON
"INTERFACES IN COMPOSITES"

Sponsored by
ASTM Committee D-30*

Friday, June 28, 1968
San Francisco Hilton

PROGRAM

Morning Session – Resin Matrix Composites

Chairman – M. J. Salkind
United Aircraft Research Laboratories
Hartford, Conn.

1. Interfacial Adhesion in Fiber Resin System – R. Patrick, Alpha R&D, Blue Island, Illinois
2. Wetting, Adsorption, and Bonding at Glass Fiber-Coupling Agent-Resin Interfaces – O. Johannson, F. Stark, G. Vogel, R. Lacefield, R. Baney, and O. Flanigam, Dow Corning, Midland, Michigan.
3. The Effect of Water on Glass Fiber-Resin Bonds – W. Eakins, Consultant, Wilbraham, Massachusetts.
4. Interfacial Bonding in Carbon Fiber-Resin Composites – S. Prosen and J. Goan, U. S. Naval Ordnance Laboratory, Silver Springs, Maryland.
5. Measurement of Fiber-Matrix Interfacial Strength – L. Broutman, Illinois Institute of Technology, Chicago, Illinois.

Afternoon Session – Metal Matrix Composites

Chairman – S. Yurenka
McDonnell Douglas
Long Beach, Calif..

6. Importance of Coatings on the Wetting and Bonding in Whisker Metal Composites – E. Feingold, W. Sutton, and M. Noone, General Electric Space Sciences Laboratory, Philadelphia, Pennsylvania.
7. The Role of the Interface in the Fracture of Fiber Composite Material – G. Cooper and A. Kelly, National Physical Laboratory, Teddington, England.
8. Interfacial Fracture in Laminated Materials – J. D. Embury and A. E. Almond, McMaster University, Hamilton, Ontario, Canada, and E. Wright, Stanford Research Institute, Palo Alto, California.
9. Interfacial Stability of Eutectic Composites – M. J. Salkind, United Aircraft Research Laboratories, East Hartford, Connecticut.
10. Interfacial Stability of Silicon Carbide Coated Boron Filament Reinforced Metals – M. Basche, United Aircraft Research Laboratories, East Hartford, Connecticut.

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*See May issue, Materials Research and Standards for abstracts and schedule.