

178
1 of 1



PREVENTION OF DETERIORATION CENTER
DIVISION OF CHEMISTRY AND CHEMICAL TECHNOLOGY
NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL

AN INTRODUCTORY BIBLIOGRAPHY ON
MICROBIAL RESISTANCE OF THERMOSETTING PLASTICS

AD 601278

Compiled by
Richard W. H. Lee

September 5, 1961

DDC
RECEIVED
JUN 19 1964
DDC-IRA A

2101 Constitution Avenue
Washington 25, D. C.

The Prevention of Deterioration Center operates with the support of the Army, Navy, and Air Force under contract between the National Academy of Sciences-National Research Council and the Office of Naval Research.

Consulting and advisory services are offered by the Center to U.S. military agencies and their contractors, and to other Federal Government organizations. A library of about 50,000 technical reports, journal articles, and patents on materiel deterioration and its prevention is maintained, and provides the basis for literature searches. Preparation of selected bibliographies on specific subjects in this field represents but one area of service the Center renders. Information regarding library loans, and other PDC services and publications will be furnished upon request.

Prevention of Deterioration Center
Division of Chemistry and Chemical Technology
National Academy of Sciences-National Research Council

AN INTRODUCTORY BIBLIOGRAPHY ON
MICROBIAL RESISTANCE OF THERMOSETTING PLASTICS

Compiled by

Richard W. H. Lee

September 5, 1961

2101 Constitution Avenue, N.W.
Washington 25, D.C.

AN INTRODUCTORY BIBLIOGRAPHY ON
MICROBIAL RESISTANCE OF THERMOSETTING PLASTICS

- A-441 Watkins, G.M.
SURVEY OF RESEARCH ON FUNGI IN RELATION TO DETERIORATION OF PLASTICS. (U.S. Naval Ordnance Laboratory, Silver Spring, Md. Memorandum 9180). July 1947. 22 p.
- A-774 U.S. Naval Research Laboratory (Charles T. Lemke).
EVALUATION OF SILICONE COATING FOR WIRE-WOUND POWER RESISTORS; NRL PROBLEM NO. 32C03-21T (BUSHIPS REQUEST NO. S1493); FINAL REPORT ON. October 1949. 5 p.
- A-1509 Hamilton, Earlane L.
A COMPILATION OF DATA FROM EVALUATIONS OF THE FUNGUS RESISTANCE PROPERTIES OF AIR FORCE MATERIALS. (U.S. Wright Air Development Center, Wright-Patterson Air Force Base, Ohio. Technical Report 55-72). April 1955. 53 p.
- A-1547 U.S. Quartermaster Corps. Quartermaster Research and Development Center, Natick, Mass. Chemicals and Plastics Division (Arthur M. Kaplan).
PREVENTION OF MICROBIOLOGICAL DETERIORATION OF ARMY MATERIEL, FIRST ANNUAL REPORT. July 1955. 69 p.
- A-1692 Ebert, H. and S. Berk.
UTILIZATION OF PLASTICIZERS AND RELATED ORGANIC COMPOUNDS BY FUNGI. (U.S. Frankford Arsenal, Philadelphia, Pa. Report No. R-1266; ... ASTIA Document 76217). May 1955. 32 p.
- B-409 Gt. Brit. Ministry of Supply. Directorate of Chemical Research and Development.
TROPIC PROOFING; PROTECTION AGAINST DETERIORATION DUE TO TROPICAL CLIMATE. 1949. 35 p.
- B-518(1) Gt. Brit. Ministry of Supply.
REPORTS ON PLASTICS IN THE TROPICS. I. EXPANDED PLASTICS. 1951. 17 p.
- B-659 Gt. Brit. Ministry of Supply.
REPORTS ON PLASTICS IN THE TROPICS. 4. PHENOLIC MOULDINGS. 1956. 45 p.
- B-665 Gt. Brit. Ministry of Supply.
REPORTS ON PLASTICS IN THE TROPICS. 3. AMINOPLASTIC MOULDINGS. (... ASTIA Document 93899). 1955. 35 p.
- C-111 Horner, Wilfred F. and Helen M. Conlon.
EFFECT OF FUNGI ON ELECTRONIC EQUIPMENT. Reprint Radio-Electronic Engineering 4(1):13-15,31,39-40. January 1945.

- C-1050(1-9) Lacquer and Chemical Corporation, Brooklyn, N.Y. Alaka Research Laboratories (S. Ruggeri and others).
FUNGUS RESISTANCE OF PLASTICS. (U.S. Bureau of Ordnance. Dept. of the Navy, Contract NOrd 11215).
(1) First Quarterly Report; January 9 to May 9. May 1951. 28 p.
(2) Second Quarterly Report; May 10 to August 9. August 1951. 98 p.
(3) Third Quarterly Report; August 10 to November 16. November 1951. 128 p.
(4) Fourth Quarterly Report; November 17, 1951 to February 8, 1952. February 1952. 75 p.
(5) Fifth Quarterly Report; February 9 to May 9. May 1952. 75 p.
(6) Sixth Quarterly Report; May 10 to August 15; ... ASTIA Document 22312. October 1952. 38 p.
(7) Seventh Quarterly Report; August 16 to November 15; ... ASTIA Document 22313. January 1953. 58 p.
(8) Eighth Quarterly Report; November 16, 1952 to February 15, 1953; ... ASTIA Document 22314. March 1953. 64 p.
(9) Ninth Quarterly Report; February 16 to May 15; ... ASTIA Document 22315. June 1953. 94 p.
- C-1448 Lacquer and Chemical Corporation, Brooklyn, N.Y. Alaka Research Laboratories (S. Ruggeri, D. Day, P. Rizzuto and D. Flaumenhaft).
FUNGUS RESISTANCE OF PLASTICS. (Its Tenth Quarterly Report; U.S. Bureau of Ordnance. Dept. of the Navy. Contract NOrd 11215).
September 1954. 124 p.
- G-422 U.S. Office of Scientific Research and Development. National Defense Research Committee. Tropical Deterioration Administrative Committee (Alfred E. Brown).
THE PROBLEM OF FUNGAL GROWTH ON SYNTHETIC RESINS, PLASTICS, AND PLASTICIZERS. (U.S. Office of Scientific Research and Development. Report No. 6067; U.S. Office of Technical Services. Publication Board [Series] PB 11967). October 1945. 56 p.
- G-459 Leutritz, John, Jr. and David B. Herrmann.
THE EFFECT OF HIGH HUMIDITY AND FUNGI ON THE INSULATION RESISTANCE OF PLASTICS. Reprint ASTM Bull. No. 138:25-32. January 1946.
- G-535(1-12) Johns Hopkins University, Baltimore, Md.
EFFECT OF MOISTURE AND FUNGUS ON ELECTRICAL INSULATING MATERIALS. (U.S. Air Materiel Command. Contract W28-099-ac70).
(1) Report for January 1946. 1946. 22 p.
(2) Report for February 1946. 1946. 13 p.
(3) Report for March 1946. 1946. 31 p.
(4) Report for April 1946. 1946. 31 p.
(5) Report for May 1946. 1946. 11 p.
(6) Final Report, June 1946. 1946. 64 p.
(7) Report for July 1946. 1946. 30 p.
(8) Report for August 1946. 1946. 40 p.
(9) Report for September 1946. 1946. 3 p.
(10) Report for October 1946. 1946. 13 p.
(11) Report for November 1946. 1947. 15 p.
(12) Report for December 1946. 1947. 6 p.

PDC Search No. 61-027

- G-535(15) Johns Hopkins University, Baltimore, Md. (R.K. Witt).
THE EFFECT OF MOISTURE AND FUNGUS ON THE ELECTRICAL AND MECHANICAL
PROPERTIES OF PLASTIC INSULATING MATERIALS. (U.S. Air Materiel
Command. Contract W28-099-ac70, Final Report, March 1947).
1947. 343 p.
- G-535(17) Johns Hopkins University, Baltimore, Md. (R.K. Witt).
THE EFFECT OF MOISTURE AND FUNGUS ON THE ELECTRICAL AND MECHANICAL
PROPERTIES OF PLASTIC INSULATING MATERIALS. (U.S. Dept. of
the Air Force. Contract W28-099-ac-70, Final Report [Volume 1]).
June 1947. 308 p.
- G-535(18) Johns Hopkins University, Baltimore Md. (R.K. Witt).
THE EFFECT OF MOISTURE AND FUNGUS ON THE ELECTRICAL AND MECHANICAL
PROPERTIES OF PLASTIC INSULATING MATERIALS. (U.S. Dept. of
the Air Force. Contract W28-099-ac-70, Final Report [Volume 3]).
July 1947. 312 p.
- G-611 Johnson Foundation for Medical Physics, Philadelphia, Pa. (W.G.
Hutchinson).
DEVELOPMENT OF A METHOD FOR TESTING THE RESISTANCE OF PLASTICS TO
FUNGUS ATTACK. (U.S. Office of Scientific Research and Develop-
ment. Report No. 5688; Its National Defense Research Committee.
Contract OEM sr-205). October 1945.
- G-7689 Leonard, John M. and Constance Patouillet.
EFFECT OF MOLD AND MOISTURE ON ELECTRICAL INSULATION. Reprint
Product Eng. 22(12):158-160. December 1951.
- G-8255 Witt, Ralph K., J.J. Chapman and B.L. Raskin.
EFFECT OF MOISTURE AND FUNGUS ON PLASTIC INSULATING MATERIALS.
In Modern Plastics 30(1):119-120,122,202-203. September 1952.
- G-9219 Day, Dorothy.
FUNGICIDE TESTS FOR PLASTICS. [Presented before The Society for
Industrial Microbiology, St. Louis, Mo., December 28, 1952].
June 1953. 10 p.
- G-10535 Day, Dorothy.
PLASTICS IN PETRI DISHES WITH POROUS CLAY COVERS. [Presented
before the Society for Industrial Microbiology, Gainesville,
Florida, September 7, 1954]. 1954. 6 p.
- G-11243 Teitell, Leonard, Sigmund Berk and Annette Kravitz.
THE EFFECTS OF FUNGI ON THE DIRECT CURRENT SURFACE CONDUCTANCE OF
ELECTRICAL INSULATING MATERIALS. In Applied Microbiol. 3:75-81.
March 1955. 7 p.

- PDL-30594 Berk, Sigmund, Leonard Teitell (U.S. Frankford Arsenal, Philadelphia, Pa.) and Helen Ebert (Smith, Kline and French Laboratories, Philadelphia, Pa.).
UTILIZATION OF PLASTICIZERS AND RELATED ORGANIC COMPOUNDS BY FUNGI.
In Ind. Eng. Chem. 49:1115-1124. July 1957.
- PDL-31194 Snoke, Lloyd R.
RESISTANCE OF ORGANIC MATERIALS AND CABLE STRUCTURES TO MARINE BIOLOGICAL ATTACK. In Bell System Tech. J. 36:1095-1127. September 1957.
- PDL-31678 Dow Corning Corporation, Midland, Mich.
DOW CORNING SILICONE MOLDING COMPOUNDS. 1957. 3 p.
- PDL-32214 Mark, Richard and Bert M. Zuckerman. (Balsa Ecuador Corp., New York, N.Y.).
REINFORCED PLASTICS AS PROTECTIVE COATINGS FOR WOOD. [Presented at 13th Annual Technical and Management Conference, Reinforced Plastics Division, Society of the Plastics Industry, Chicago, Ill., February 6, 1958]. [n.d.]. 23 p.
- PDL-33083 Harper, Charles A. (Westinghouse Electric Corporation. Air Arm Division, Baltimore, Md.).
ENVIRONMENTAL TESTS FOR EMBEDDED ELECTRONIC UNITS. In Elec. Mfg. 58(6):116-119. December 1956.
- PDL-33363 REINFORCED PLASTICS ARE STRONG AT 500 F. In Materials in Design Eng. 48(2):150,162. August 1958.
- PDL-33563 Zuckerman, Bert M. and Richard Mark (Balsa Ecuador Corporation, New York, N.Y.).
PROTECTING WOOD FROM DECAY WITH REINFORCED PLASTICS. In SPE Journal 14(9):40-46. September 1958.
- PDL-33842 Van Boskirk, R.L.
EPOXIES IN FOURTH DIMENSION. In Modern Plastics 36(3):39,41 November 1958.
- PDL-34420 Walter, W.G., B. Beadle, R. Rodriguez and Dorothy Chaffey (Montana State College, Bozeman).
THE EFFECT OF PLASTICS ON BACTERIA. In SPE Journal 14(8):36-37,54. August 1958.
- PDL-34667 Hueck, H.J. (Central Laboratory T.N.O., Delft, Neth.).
[THE BIOLOGICAL DETERIORATION OF PLASTICS]. In Plastica 12:24-35. January 1959. Includes English Summary.
- PDL-35594 Chance, Leon H., Fred S. Perkerson and Oscar J. McMillan, Jr. (U.S. Agricultural Research Service. Southern Regional Research Laboratory, New Orleans, La.).
PHENOLIC-FORMALDEHYDE RESINS AS FINISHING AGENTS FOR COTTON FABRICS. In Textile Research J. 29:558-564. July 1959.

PDC Search No. 61-027

- PDL-39916 Webb, T.L. and J.H. van Aardt (Union of South Africa. Council for Scientific and Industrial Research).
DETERIORATION OF MATERIALS UNDER TROPICAL CONDITIONS. In S. African Architect. Record 43(11):29-36. November 1958.
- PDL-39762 International Standards Organization, Geneva. Technical Committee. USSR PROPOSED METHOD FOR DETERMINATION OF RESISTANCE OF PLASTICS TO MOULDS. (Its [Paper] ISO/TC/61/WG/6(USSR-1)). November 1958. 9 p.
- PDL-40010 Hueck, H.J.
THE BIOLOGICAL DETERIORATION OF PLASTICS. (Central Laboratory T.N.O., Delft, Neth. Nr. 93). October 1960. 4 p.
- PDL-40081 Al'bitskaya, O.N. and N.A. Shaposhnikova.
[THE STABILITY OF ELECTRICAL INSULATION MATERIALS TOWARD ATTACK BY MOLD FUNGI]. In Vestnik Elektroprom. 30(10):54-59. October 1959. In Russian.

NATIONAL ACADEMY OF SCIENCES
NATIONAL RESEARCH COUNCIL

The National Academy of Sciences-National Research Council is a private, nonprofit organization of scientists, dedicated to the furtherance of science and to its use for the general welfare.

The Academy itself was established in 1863 under a Congressional charter signed by President Lincoln. Empowered to provide for all activities appropriate to academies of science, it was also required by its charter to act as an adviser to the Federal Government in scientific matters. This provision accounts for the close ties that have always existed between the Academy and the Government, although the Academy is not a governmental agency.

The National Research Council was established by the Academy in 1916, at the request of President Wilson, to enable scientists generally to associate their efforts with those of the limited membership of the Academy in service to the nation, to society, and to science at home and abroad. Members of the National Research Council receive their appointments from the President of the Academy. They include representatives nominated by the major scientific and technical societies, representatives of the Federal Government, and a number of members-at-large. In addition, several thousand scientists and engineers take part in the activities of the Research Council through membership on its various boards and committees.

Receiving funds from both public and private sources, by contributions, grant, or contract, the Academy and its Research Council thus work to stimulate research and its applications, to survey the broad possibilities of science, to promote effective utilization of the scientific and technical resources of the country, to serve the Government, and to further the general interests of science.

The **Prevention of Deterioration Center**, organized in 1945, resides within the Division of Chemistry and Chemical Technology. Formed originally at the request and with the support of the Departments of Navy and Army, and later the Air Force, it was a continuation of the wartime OSRD-NDRC Tropical Deterioration Information Center. The Center is charged with responsibility to assist the U.S. Department of Defense and other authorized agencies interested in combating the impairment and deterioration of materials and equipment, due to effects of the environment.