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GYPSUM

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GENERAL INFORMATION

Some of the publications in this list have appeared in the regular series of publications of the Bureau and others in various scientific and technical journals. Unless specifically stated, papers are not obtainable from the National Bureau of Standards.

Where the price is stated, the publication can be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain foreign countries which extend the franking privilege. In the case of all other countries, one-third the cost of the publications should be added to cover postage. Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for \$1.00 and good until used), or by check or money order payable to the "Superintendent of Documents, Government Printing Office" and sent to him with order.

Publications marked "OP" are out of print, but, in general, may be consulted at technical libraries.

For papers in other scientific or technical journals, the name of the journal or of the organization publishing the article is given in abbreviated form, with the volume number (underscored), page, and year of publication, in the order named. The Bureau

cannot supply copies of these journals, or reprints from them, and it is unable to furnish information, in all cases, as to their availability or price. They, too, can usually be consulted at technical libraries.

Series letters with serial numbers are used to designate Bureau publications:

- S = "Scientific Paper". S1 to S329 are "Reprints" from the "Bulletin of the Bureau of Standards". S330 to S572 were published as "Scientific Papers of the Bureau of Standards". This series was superseded by the "Bureau of Standards Journal of Research" in 1928.
- T = "Technologic Paper". T1 to T370. This series was superseded by the "Bureau of Standards Journal of Research" in 1928.
- RP = "Research Paper". These are reprints of articles appearing in the "Bureau of Standards Journal of Research" and the "Journal of Research of the National Bureau of Standards", the latter being the title of this periodical since July 1934 (Volume 13, number 1).
- C = "Circular".
- H = "Handbook".
- M = "Miscellaneous Publication".
- R = "Simplified Practice Recommendation".
- CS = "Commercial Standard".
- BH = "Building and Housing" publication.
- BMS = "Building Materials and Structures" publication.
- LC = "Letter Circular" obtainable at the National Bureau of Standards without charge.

Circular C24 and supplements, the complete list of the Bureau's publications (1901-1936), is sold by the Superintendent of Documents for 55 cents. Announcement of new publications is made each month in the Technical News Bulletin which is obtainable by subscription at 50 cents per year.

Research Papers

	<u>Series</u>	<u>Price</u>
Fire resistance of hollow load-bearing wall tile. S. H. Ingberg and H. D. Foster (Includes fire tests on wall tile covered with gypsum plaster). BS J. Research, <u>2</u> , 1(1929).	RP 37	75¢
Transmission of sound through wall and floor structures. V. L. Chrisler and W. V. Snyder. BS J. Research, <u>2</u> , 541(1929).	RP 48	5¢
The sulphoaluminate of calcium. William Lerch, F. W. Ashton, and R. H. Bogue. BS J. Research, <u>2</u> , 715(1929).	RP 54	10¢
Heat transfer through building walls. M.S. Van Dusen and J. L. Finck. BS J. Research, <u>6</u> , 493(1931).	RP291	OP
Fire tests of columns protected with gypsum; Nolan D. Mitchell. BS J. Research, <u>10</u> , 737(1933)	RP563	5¢
Recent sound-transmission measurements at the National Bureau of Standards. V. L. Chrisler and W. V. Snyder. J. Research NBS, <u>14</u> , 749(1935).	RP800	5¢
Heat of hydration and transition of calcium sulfate. Edwin S. Newman and Lansing S. Wells. J. Research NBS, <u>20</u> , 825(1938).	RP1107	5¢

Scientific Papers

Transmission of sound by some building materials. E. A. Eckhardt and V. L. Chrisler. Sci. Pap. BS, <u>21</u> , 37(1926).	S526	OP
Transmission of sound through building materials. V. L. Chrisler. Sci. Pap. BS, <u>22</u> , 227(1927).	S552	OP

Technologic Papers

Durability of stucco and plaster construction. R.J. Wig, J. C. Pearson and W. E. Emley. Tech. Pap. BS, T70 (1916-17).	T 70	OP
A comparison of the heat-insulating properties of some of the materials used in fire-resistive construction. Walter A. Hull. Tech. Pap. BS, T130(1919).	T130	OP

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Technologic Papers (continued)	<u>Series</u>	<u>Price</u>
Colored wall plaster. W.E. Emley and C. F. Faxon. Tech. Pap. BS, T181(1920-21)	T181	OP
Fire tests of building columns. S. H. Ingberg, H. K. Griffin; W. C. Robinson, and R.E. Wilson. Tech. Pap. BS, T184(1921)	T184	75¢

Circulars

Materials for the household. Cir. BS, C70(1917).	C 70	50¢
Gypsum - properties, definitions, and uses. Cir. BS, C108(1921).	C108	OP
Wall plaster: Its ingredients, preparation and properties. Cir. BS, C151(1924).	C151	15¢
The technology of the manufacture of gypsum products. Cir. BS, C281(1926).	C281	OP

Miscellaneous Publications

Paint for priming plaster surfaces. Percy H. Walker and E. F. Hickson. Misc. Pub. BS, M137(1932).	M137	5¢
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Building and Housing Publications

Care and repair of the house. V. B. Phelan. Bldg & Hous. BS, BH15(1931).	BH 15	15¢
Recommended minimum requirements for small dwelling construction. Bldg & Hous. BS, BH18(1932)	BH 18	10¢

Building Materials and Structures

Suitability of fiber insulating lath as a plaster base. Lansing S. Wells and D. C. Smith. Bldg Mtrls. & Struc. BMS3(1938).	BMS 3	10¢
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Simplified Practice Recommendations

Metal Lath (2d edition). Simpl. Prac. BS, R3(1937)	R 3	5¢
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Letter Circulars
(no charge)

	<u>Series</u>	<u>Price</u>
Standard specifications for sieves - "Standard sieve series." Let. Cir. BS, LC74(1926)	LC 74	No chg.
Publications relating to fire resistance and fire prevention. Let. Cir. NBS, LC165(1938)	LC165	No chg.
List of publications giving data on dental research. (Refers to publications giving thermal expansion of plaster of paris and dental investments containing plaster of paris.) Let. Cir. NBS, LC239(1935).	LC239	No chg.
Painting plaster. Let. Cir. NBS, LC304(1933).	LC304	No chg.
Sound absorption coefficients of the more common materials. Let. Cir. NBS, LC452(1935).	LC452	No chg.
Summary of results of fire tests of non-bearing partitions of neat or lightly sanded gypsum plasters on metal lath.		

Federal Specifications

(Issued by the Federal Specifications Executive Committee, Washington, D.C., and obtainable from the Superintendent of Documents, Government Printing Office, Washington, D.C. at the prices stated.)

Federal specification for bandages; plaster of paris. FS GC-B-101(Aug. 23, 1932).	GG-B-101	5¢
Federal specification for bases, metal; (for) plaster and stucco construction. FS QQ-B-101c (Aug. 22, 1938)	QQ-B-101c	5¢
Federal specification for cement, Keene's. FS SS-C-161 (Feb. 7, 1933).	SS-C-161	5¢
Federal specification for gypsum; calcined. FS SS-G-901 (Oct. 14, 1930).	SS-G-901	5¢
Federal specification for plaster; gypsum. FS SS-P-401 (March 3, 1931).	SS-P-401	5¢
Federal specification for plaster-board; gypsum. FS SS-P-431a (April 2, 1935).	SS-P-431a	5¢
Federal specification for wall-board; gypsum. FS SS-W-51a (April 2, 1935).	SS-W-51a	5¢

List of papers which have appeared in various scientific and technical journals arranged chronologically.

- Measurement of the time of set of calcined gypsum. W. E. Emley. Trans. Am. Ceramic Soc. (2525 N. High St., Columbus, Ohio), 19, 573(1917).
- Tests of clays and limes by the Bureau of Standards plasticimeter. F. A. Kirkpatrick and W. B. Orange. J. Am. Ceramic Soc. (2525 N. High St., Columbus, Ohio), 1, 170(1918)(Includes tests on lime-gypsum pastes.)
- Some factors influencing the time of set of calcined gypsum. F. F. Householder, J. Am. Ceramic Soc., 1, 578(1918).
- Tests of plain and reinforced gypsum specimens. W. A. Slater and G. P. Anthes. J. West. Soc. of Engrs. (205 W. Wacker Drive, Chicago, Ill.) 24, 399(1919); Discussion, 24, 595(1919).
- Tentative report on design of reinforced gypsum beams. W. A. Slater. Proc. Am. Soc. for Testing Materials, (260 S. Broad St., Philadelphia, Pa.), 19, Part I, 348(1919).
- Results of testing gypsum products. W.E. Emley and C. F. Faxon. J. Am. Ceramic Soc., 3, 984(1920).
- Colored wall plaster. W. E. Emley and C. F. Faxon. Rock Products. (330 S. Wells St., Chicago, Ill.), 24, 55(June 4, 1921); also Tech. Pap. BS, T181(1920-21) under same title.
- Normal consistency of sanded gypsum plaster. W. E. Emley and C. F. Faxon. J. Am. Ceramic Soc., 4, 152(1921).
- Effect of fineness on other properties of calcined gypsum. W. E. Emley and F. C. Welch. J. Am. Ceramic Soc. 4, 301(1921).
- U. S. Patent No. 1,392,574; Plastic gypsum plaster. W. E. Emley. Chem. and Met. Eng. (McGraw-Hill Co., 330 W. 42d St., New York, N. Y.), 24, 740(1921); Rock Products (Tradepress Publishing Co., 330 S. Wells St., Chicago, Ill.), 24, 40(May 7, 1921); Eng. News-Record (McGraw-Hill Co., 330 W. 42d St., New York, N. Y.), 86, 1023(1921); Eng. and Contracting. (Gillette Publishing Co., 221 E. 20th St., Chicago, Ill.), June 22, 1921.
- Specifications for the color of gypsum plaster. W. E. Emley and C. F. Faxon. Chem. and Met. Eng. (McGraw-Hill Co., 330 W. 42d St., New York, N. Y.), 24, 1054(1921).

- Gypsum plaster and wall boards. J. M. Porter. Proc. Am. Soc. for Testing Materials. (260 S. Broad St., Philadelphia, Pa.), 22, Part I, 359(1922).
- Volumetric changes of gypsum. J. M. Porter. Proc. Am. Soc. for Testing Materials, 23, Part I, 244(1923).
- Fire resistive properties of gypsum. S. H. Ingberg. Proc. Am. Soc. for Testing Materials, 23, Part I, 254(1923).
- Effects of accelerators and retarders on calcined gypsum. F. C. Welch. J. Am. Ceramic Soc., 6, 1197(1923).
- Analysis of gypsum and gypsum products. F. C. Welch. J. Ind. Eng. Chem., (American Chemical Society, Mills Bldg., Washington, D.C.), 16, 238(1924).
- Effect of Tennessee ball clay upon the tensile strength of gypsum. J. M. Porter. Rock Products. (330 S. Wells St., Chicago, Ill.) 27, 47(Feb. 23, 1924).
- Effect of composition on some properties of gypsum plasters. F. C. Welch. Rock Products, 27, 27(Nov. 15, 1924).
- Properties of gypsum tile. J. M. Porter. Proc. Am. Soc. for Testing Materials, 24, Part II, 901(1924).
- Getting rid of efflorescence on gypsum plaster. F. C. Welch. Chem. and Met. Eng. (Published by McGraw-Hill Co., 330 W. 42d St., New York, N. Y.), 31, 263(Aug. 18, 1924).
- Work of the Bureau of Standards for 1924 on lime, gypsum and sand-lime brick. Rock Products, 27, 121(Dec. 27, 1924).
- Sands for lime, gypsum and cement plasters. H. V. Johnson. Rock Products. (Trade Press Publishing Co., 330 S. Wells St., Chicago, Ill.), 28, 54(March 21, 1925).
- The fire resistance of gypsum partitions. S. H. Ingberg. Proc. Am. Soc. for Testing Materials. (260 S. Broad St., Philadelphia, Pa.), 25, Part II, 299(1925).
- Some modern gypsum products. J. M. Porter. Chem. and Met. Eng. (McGraw-Hill Co., 330 W. 42d St., New York, N.Y.), 32, 499(1925).
- The adhesion of gypsum plaster to various backings. J.P.C. Peter. Am. Architect. (International Publications, 372 Madison Ave., New York, N. Y.), 128, Sept. 9, 1925.

Scientific and Technical Articles (continued)

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- Factors affecting the time of set of mechanically mixed gypsum mortars. L.E. Smith. Rock Products. (Trade Press Publishing Co., 330 S. Wells St., Chicago, Ill.), 28, 61(Aug. 22, 1925).
- Effect of storage of calcined gypsum on linear expansion of gypsum plaster. L. E. Smith. Rock Products, 28, 54(Oct. 3, 1925).
- The adhesion of gypsum plaster to concrete. Cement, Mill and Quarry. (Complete Service Publishing Co., 538 S. Clark St., Chicago, Ill.), 32(Oct. 20, 1925).
- Recent work of the lime, gypsum and sand-lime brick section of the Bureau of Standards. Rock Products, 28, 60(Oct. 31, 1925).
- Effect of the process of manufacture on the properties of calcined gypsum. L. E. Smith. Rock Products, 29, 56(May 1, 1926).
- Some properties of gypsum-lime mixes. L. E. Smith. Rock Products. 29, 39(Nov. 27, 1926).
- Work of the Bureau of Standards in 1926 on lime, gypsum and sand-lime brick. Rock Products, 30, 59(Jan. 8, 1927).
- Some advances in gypsum technology. J. M. Porter. Chem. and Met. Eng., 33, 549(1926).
- Adhesion of plaster and stucco to hollow clay tile. J. A. Murray and H. D. Foster. Am. Architect. (International Publications, 372 Madison Avenue, New York, N. Y.), 132, 839(Dec. 20, 1927); Brick and Clay Record. (Industrial Publications, 59 E. Van Buren St., Chicago, Ill.), 72, 34(1928); Contract Record. (Hugh O. McLean Publications, Ltd., 347 Adelaide St., W., Toronto 2, Canada), 42, 80(1928).
- Experimental electrical rotary calciner. J. A. Murray. Chem. and Met. Eng. (McGraw-Hill Co., 330 W. 42d St., New York, N.Y.), 34, 697(1927). [November .
- Effect of various admixtures on the workability and other properties of gypsum plasters. M. C. Daily and J.F.C. Peter. Bul. Gypsum Industries (The Gypsum Association, 311 W. Wacker Drive, Chicago, Ill.), 1927.
- Expansion of a calcined gypsum on setting. J. A. Murray. Rock Products. 31, 88(Jan. 21, 1928).
- Limes, structural cements and plasters. P.H. Bates and J.M. Porter. Survey of American Chemistry, 255 and 262, Third Annual, 1928.

Properties of gypsum fiber concrete. Proc. Am. Soc. for Testing Materials. (260 S. Broad St., Philadelphia, Pa.), 30, Part I, 719(1930).

Volume changes of gypsum fiber concrete. H. F. McMurdie and F. L. Marsh. Rock Products, 35, 20(March 26, 1932).

Gypsum-incased steel columns subjected to fire tests. N. D. Mitchell: Eng. News-Record. (McGraw-Hill Co., 330 W. 42d St., New York, N.Y.), 111, 195(1933).

