Publications of the
DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS

Letter
Circular
LC 131

WASHINGTON, D.C.

December 15,1924.

PUBLICATIONS RELATING TO CERAMICS

(The publications not starred may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C., at the prices stated. Those marked with a star are out of print, but may be consulted at leading libraries.)

Scientific Papers

Number	Title	Price
*S 212	Melting Points of Some Refractory Oxides	
S 358	Concerning the Annealing and Characteristics of Glass	10¢
S 373	Characteristics of Striae in Optical Glass	5¢
S 393	Measurements of Thermal Dilatation of Glass at High Temperatures	10¢

Technologic Papers

Number	Title	Price
T 1	Effect of Preliminary Heat Treatment Upon the Drying of Clays	10¢
*T 7	The Testing of Clay Refractories, with Special Reference to their Load-Carrying Ability at Furnace Temperatures	
T 10	The Melting Point of Fire Brick	5¢
*T 17	The Function of Time in the Vitrification of Clays	
T 21	The Dehydration of Clays	5¢
*T 22	The Effect of Overfiring Upon the Structure of Clays	

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*T	23	The Technical Control of the Colloidal Matter of Clays	
*T	30	Viscosity of Porcelain Bodies	
*T	31	Some Leadless Boro-Silicate Glazes Maturing at About 1100°C.	
T	40	The Veritas Firing Rings	5¢
*T	46	A Study of the Atterberg Plasticity Method	
T	50	The Viscosity of Porcelain Bodies High in Feldspar	5¢
*T	51	Use of Sodium Salts in the Purification of Clays and in the Casting Process	
T	79	Properties of Some European Plastic Fire Clays	10¢
T	80	Constitution and Microstructure of Porcelain	25¢
T	85	Manufacture and Properties of Sand-Lime Brick	10¢
T	104	The Effect of Size of Grog in Fire Clay Bodies	10¢
T	105	Comparative Tests of Porcelain Laboratory Ware	5¢
T	107	Comparative Tests of Chemical Glassware	10¢
T	111	The Compressive Strength of Large Brick Piers	10¢
T	116	Silica Refractories - Factors Affecting Their Quality and Methods of Testing the Raw Materials and Finished Ware	20¢
T	120	Tests of Hollow Building Tile	5¢
T	124	Constitution and Microstructure of Silica Brick and Changes Involved Through Repeated Burnings at High Temperatures	10¢
T	142	Materials and Methods Used in the Manufacture of Enameled Cast-Iron Wares	20¢
T	144	The Properties of American Bond Clays and Their Use in Graphite Crucibles and Glass Pots	10¢
T	155	Cements for Spark Plug Electrodes	5¢
T	159	Porosity and Volume Changes of Clay Fire Bricks at Furnace Temperatures	5¢

T 185	Enamels for Sheet Iron and Steel	15¢
T 196	High-Fire Porcelain Glazes	5¢
T 227	American and English Ball Clays	10¢
T 234	Methods of Measuring the Plasticity of Clays	10¢
T 246	Wet-Process Enamels for Cast Iron	10¢
T 262	Comparison of American and Foreign Clays as Paper Fillers	15¢

Circulars

Number	Title	Price
C 119	Specifications for Lime-Flint Glass Tumblers	5¢
C 134	U.S. Government Master Specification for Flat Glass for Glazing Purposes	5¢

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SPECIFICATIONS ISSUED BY FEDERAL SPECIFICATIONS BOARD

Copies can be obtained free of charge from the Chairman, Federal Specifications Board, Bureau of Standards, Washington, D. C.

Specification 243. U.S. Government Master Specification for Vitrified Chinaware

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PUBLICATIONS APPEARING IN THE TRANSACTIONS AND JOURNALS OF THE AMERICAN CERAMIC SOCIETY

(Copies of the Transactions and Journals may be consulted at leading libraries or may be obtained from the Secretary of the Society at Lord Hall, O.S.U., Columbus, Ohio.)

Porcelain, Whiteware and Allied Products

A Study of the Vitrification Range and Di-Electric Behavior of Some Porcelains. Trans. 12:1910.

The Measurement of Color of Whiteware and Whiteware Materials. Trans. 13:1911.

High Voltage Insulators and High Potential Testing. Trans. 14:1912.

The Viscosity of Porcelain Bodies. Trans. 15: 1913.

The Clark Viscosimeter. Trans. 15: 1913.

The Veritas Firing Rings. Trans. 16: 1914.

Study of the Atterberg Plasticity Method. Trans. 16: 1914.

Some of the Properties of White Porcelain Cement. Trans. 16: 1914.

The Viscosity of Porcelain Bodies. Trans. 17: 1915.

The Bureau of Standards Contrast Method for Measuring Transparency. Trans. 17: 1915.

Electrical Conductivity of a Porcelain Mixture and a Shale Upon Heating. Trans. 17: 1915.

Notes on the Manufacture of Porcelain Pyrometer Tubes. Trans. 18: 1916.

The Constitution and Microstructure of Porcelain. Trans. 18: 1916.

Notes on the Production of Special Refractories-Marquardt Porcelain and Magnesium Aluminate. Trans. 19: 1917.

Note on the Temperature, Porosity, Volume Changes of Some Porcelain Bodies. Trans. 19: 1917.

Some Types of Porcelain. Jour. 1, No. 9.

Note on Certain Characteristics of Porcelain. Jour. 1, No. 10.

Effect of Time and Temperature on the Microstructure of Porcelain. Jour. 2, No. 3.

Impact Tests and Porosity Determinations on Some American Hotel China and Semi-Porcelain Plates. Jour. 2, No. 3.

Some Physical Properties of American Commercial Porcelain Bodies. Jour. 2, No. 4.

Special Spark Plug Porcelains. Jour. 2, No. 7.

Relation Between the Composition and the Thermal Expansivity of Porcelain. Jour. 2, No. 10.

Further Studies on Porcelain. Jour. 2, No. 10.

The Solubility of Boric Acid Frits. Jour. 3, No. 2.

The Rate of Vitrification of Porcelain Molded Under Different Conditions. Jour. 3, No. 10.

Solubility and Fusibility of Some Feldspar Frits. Jour. 4, No. 6.

High-Fire Porcelain Glazes. Jour. 4, No. 9.

Note on the Hardness of Glazes. Jour. 4, No. 11.

Earthenware Bodies and Glazes. Jour. 4, No. 12.

Comparative Tests of American and Foreign Tableware. Jour. 5, No. 6.

Impact Tests on Tableware. Jour. 6, No. 2.

The Effect of Variation in Firing on the Physical Properties of Vitreous China Bodies. Jour. 6, No. 8.

The Bonding Effect of Ball Clays in Fired Bodies. Jour. 7, No. 2

An Apparatus for Measuring the Abrasive Hardness of Glazes. Jour. 7, No. 5.

Refractories and Heavy Clay Products

The Relation Between the Porosity and Crushing Strength of Clay Products. Trans. 12: 1910.

The Behavior of Fire Bricks Under Load Conditions at a Temperature of 1300°C. Trans. 12: 1910.

The Behavior of Fire Bricks Under Load Conditions. Trans. 13: 1911.

The Relation Between the Crushing Strength and Porosity of Clay Products. Trans. 14: 1912.

Note on Load Tests Made on Magnesite, Chrome, and Silica Brick. Trans. 14: 1912.

The Melting Points of Refractory Materials. Trans. 15: 1913.

The Development of Special Refractory Bodies. Trans. 15: 1913.

Report on Rattler Tests Made on Brick Obtained from Paved Streets. Trans. 16: 1914.

The Relative Thermal Conductivities of Silica and Clay Refractories. Trans. 16: 1914.

Effect of Saturated Sodium Sulphate Solution Upon the Structure of Clay Burned to Different Temperatures. Trans. 17: 1915.

Notes on Casting. Trans. 17: 1915.

A Method of Testing the Corrosive Action of Slag on Fire Brick. Trans. 18: 1916.

Note on the Volume Changes of Silica Brick Mixtures. Trans. 18: 1916.

Volume Changes of Some Commercial Silica Bricks on Heating. Trans. 19: 1917.

The Effect of Size of Grog in Fire Clay Bodies. Trans. 19: 1917.

Special Pots for the Melting of Optical Glass. Jour. 1, No. 1.

Porosity and Volume Changes of Clay Fire Brick at Furnace Temperatures. Jour. 1, No. 6.

Silica Refractories. Jour. 1, No. 7.

The Equipment of a Casting Plant for the Manufacture of Glass Pots. Jour. 2, No. 8.

Note on the Casting of Porcelain Glass Pots. Jour. 2, No. 8.

Siliceous Sagger Mixtures. Jour. 3, No. 1.

Note on the Load Behavior of Aluminous Refractories. Jour. 3, No. 2.

Notes on Porcelain Glass Pot Mixtures. Jour. 3, No. 7.

The Transverse Strength of Fire-Clay Tiles at Furnace Temperatures. Jour. 4, No. 7.

Possibilities of Terra Cotta Castings. Jour. 4, No. 11.

Study of Some Bond Clay Mixtures. Jour. 4, No. 11.

Effectiveness of Different Methods of Making Absorption Determinations as Applied to Hollow Building Tile. Jour. 5, No. 11.

Capping for Compression Specimens. Jour. 6, No. 5.

Effect of Grog Additions on Fire Resistance of Hollow Tile. Jour. 6, No. 6.

Further Studies on Cast Glass Pots. Jour. 6, No. 8.

Progress Report on Specifications for Refractories Jour. 6, No. 10.

Strength, Absorption and Freezing Resistance of Hollow Building Tile. Jour. 7, No. 3.

Notes on the Behavior of Refractories in Glass Melting Furnaces. Jour. 7, No. 8.

The Laboratory Testing of Aluminous Refractories. Jour. 7, No. 9.

Vitreous Enamels

Ground Coat Enamels for Cast Iron. Jour. 1, No. 2.

Preparation and Application of Enamels for Cast Iron. Jour. 1, No. 8.

Control of Luster of Enamels. Jour. 1, No. 9.

Enamels for Cast Iron. Jour. 1, No. 10.

The Cleaning of Sheet Steel and Iron for Enameling Purposes. Jour. 2, No. 11.

Classification of Enamels for Sheet Steel. Jour. 3, No. 12.

The Cause and Control of Fish Scaling of Enamels for Sheet Iron and Steel. Jour. 4, No. 8.

Some Relations of Composition to Solubility of Enamels in Acids. Jour. 4, No. 9.

The Production of Some White Enamels for Copper. Jour. 4, No. 10.

Wet Process Enamels for Cast Iron. Jour. 5, No. 10.

The Effect of Some Substitutes for Tin Oxide on the Opacity of White Enamels for Sheet Steel. Jour. 3, No. 5.

The Relations Between Composition and Properties of Enamels for Sheet Steel. Jour. 6, No. 10.

Factors Affecting the Properties of Sheet Iron and Steel in Enameling. Jour. 7, No. 5.

The Development of Some Jewelry Enamels. Jour. 7, No. 12.

Glass

Variation in Soda, Lime, and Magnesia Content of a Glass of the Type $RO3SiO_2$. Trans. 17: 1915.

Observations on the Formation of Seeds in Optical Glass. Jour. 1, No. 2.

Strength Tests of Plain and Protective Sheet Glass. Jour. 1, No. 11.

Procedure in the Manufacture of Optical Glass. Jour. 2, No. 3.

Production of Selenium Red Glass. Jour. 2, No. 11.

Comparison Tests for Striae in Optical Glass by the Brashear Converging Light, Direct View Method, the Bureau of Standards Tank Immersion Method, and the Short Range Projection Method. Jour. 2, No. 12.

Disintegration of Soda-Lime Glasses in Water. Jour. 5, No. 8.

The Microscopic Identification of Stones in Glass. Jour. 7, No. 1.

Tests on the Resistive Qualities of Soda-Lime Glasses to Water. Jour. 6, No. 4.

A Study of the Origin and Cause of Stones in Glass. Jour. 6, No. 6.

The Mechanical Strength of Glazing Glass. Jour. 6, No. 9.

Miscellaneous

Raw Materials - Their Properties, Uses and Methods of Testing

Note on the Viscosity of Clay Slips as Determined by the Clark Apparatus. Trans. 12: 1910.

Notes on the Preheating Treatment of Clays. Trans. 12: 1910.

The Dehydration of Clays. Trans. 14: 1912.

The Effect of Overburning on the Structure of Clays. Trans. 15: 1913.

Function of Time in the Vitrification of Clays. Trans. 15: 1913.

The Electrical Conductivity of Clays and Clay Suspensions. Trans. 15: 1913.

Study of Some Calcareous and Magnesium Slags. Trans. 15: 1913.

The Temperature Porosity Relations of a Clay Prepared in the Plastic and in the Moist Condition. Trans. 15: 1913.

A Note on the Reduction of Fe_2O_3. Trans. 16: 1914.

The Compression, Tensile, and Transverse Strength of Some Clays in the Dried State. Trans. 16: 1914.

The Flow of Clays Under Pressure. Trans. 16: 1914.

A Laboratory Oven Provided with Recording Attachments for the Study of Drying Clays. Trans. 16: 1914.

Viscosity of Some Shales at Furnace Temperatures. Trans. 16: 1914.

The Use of Deflocculating Agents in the Washing of Clays and the Effect of the Process Upon the Color. Trans. 17: 1915.

Note on Thermal Electric Phenomena Observed in Some Silicates. Trans. 17: 1915.

A Study of Fire Clay, Shale, and Surface Clay Mixtures with Reference to Their Porosity Temperature Relations. Trans. 17: 1915.

The Relation Between the Modulus of Elasticity and the Porosity of Burned Clay. Trans. 17: 1915.

Deformation of Plastic Bodies Under Compression as a Measure of Plasticity. Trans. 17: 1915.

Microscopic Investigation of Some Compounds Noted in the Systems Soda-Zinc Oxide-Silica and Soda-Zinc Oxide-Titanic Oxide-Silica. Trans. 17: 1915.

On the Attainment of Reliable Temperature Measurements in the Ceramic Industries by Means of Thermocouples. Trans. 18: 1916.

Softening Points of Potash, Feldspar-Steatite Mixtures. Trans. 18: 1916.

Heat Balance of a Continuous Tunnel Kiln. Trans. 19: 1917.

An Instrument for Measuring Plasticity. Trans. 19:1917.

Properties of Some American Bond Clays. Trans. 19:1917.

Test of a Producer Gas-Fired Periodic Kiln. Jour. 1, No. 1.

Tests of Clays and Limes by the Bureau of Standards Plasticimeter. Jour. 1, No. 3.

Applications of the Polarizing Microscope in Ceramics. Jour. 2, No. 9.

The Use of American Raw Materials in the Manufacture of Whiteware Pottery. Jour. 3, No. 2.

The Testing of Clays for Concrete Aggregate. Jour. 3, No. 3.

Effect of Aluminum Chloride Upon Clays. Jour. 3, No. 12.

Use of American Raw Materials in the Manufacture of Whiteware Pottery. Jour. 3, No. 12.

Note on the Effect of Time on the Drying Shrinkage of Clays. Jour. 4, No. 4.

The Water Smoking of Clays. Jour. 4, No. 5.

Absorption of Sodium Hydroxide by Kaolins. Jour. 4, No. 6.

Use of Special Oxides in Porcelain Bodies. Jour. 4, No. 10.

The Plasticity of Clays. Jour. 5, No. 6.

Comparative Tests of Foreign and Domestic Whiting. Jour. 5, No. 12.

Effect of Hydrogen Ion Concentration Upon Clay Suspensions. Jour. 6, No. 9.

Thermal Expansion of Fused Quartz. Jour. 7, No. 11.