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Article 1

Nosov A. V., Chernykh T. N., Kramar L. Ya.
Features of the interaction of hydration products dolomite magnesium oxychloride cement with fillers of different genesis
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Key words: dolomite, dolomite astringent, fine-grained concrete, interaction with fillers

Abstract

The interaction of hydration products dolomite magnesium oxychloride cement (MOC) with quartz sand and dolomite filler is considered. The nature of the clutch hardened cement paste with fillers is investigated. It has been established that the adhesion strength depends on the nature and degree of crystallization of fillers. The nature of the interaction of aggregates and binder is adhesive.

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Article 2

Nartsev V. M., Mulevanov S. V.
Spectrophotometric method for the determination of different-forms of iron in silicate glasses
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Key words: industrial silicate glasses, optical spectrophotometry, different-shaped iron, calibration curves, phenanthroline method

Abstract

The technique for the spectrophotometric determination different forms of iron in industrial silicate glass, which is applicable for flat and container glass, is described. Method has a high rapidity and availability. For the plotting of calibration curves is recommended to use phenanthroline method for determination of iron.

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Article 3

Kremenetskaya I. P., Gurevich B. I., Ivanova T. K., Lashchuk V. V., Bubnova T. P.
Binding properties of metaserpentin
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Key words: serpentine, metaserpentine, dispersion, storage environment, granulation

Abstract

The influence of dispersion of the metaserpentine and storage conditions of the samples obtained on its basis, on the strength of the binder. Decisive importance on the strength has no specific surface samples, and the number of small fraction of less than 10 microns. Damp storage is best for curing serpentine binder.

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Article 4

Zubekhin A. P., Golovanova S. P., Yatsenko E. A., Yatsenko N. D.
Scientific bases of sintering in silicate technology
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Key words: sintering, physical and chemical processes, phase composition, structure, polycrystalline materials, crystal phase, glass, porosity, melt, the firing of Portland cement clinker, the firing of the porcelain

Abstract

Presents an analysis of the definition of sintering technology of refractory nonmetallic and silicate materials contained in textbooks and manuals. A definition of the essence of sintering technology of ceramics and Portland cement clinker based on the results of studies conducted by numerous authors.

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Article 5

Samchenko S. V., Alpatskiy D. G., Alpatskaya I. E.
Briquetting of waste mineral wool production using alumina cements
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Key words: alumina cement, mineral wool production, heat exchange in blast cupola, waste recovery

Abstract

Briquetting of wast material wool production are encouraged to apply alumina cements mark AC40 and AC50. Established that the use of alumina cement, even with a low modulus of acidity does not affect the quality of the melt. The resulting mathematical relationships between impact strength and samples humidity and temperature treatment allow to choice the optimal material composition for the practical application.

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Article 6

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Phase diagram of hydration and hardening of cement
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Key words: cement, hydration, concretion, volume fractions, the law of constant, volumetric phase composition, evaluation parameters, structure formation, kinetics, phase diagram

Abstract

Using bulk phase characteristics allows effectively enough to produce a quantitative estimate structural changes occurring in the interaction of cement with water. Construction of the phase diagram of this process – a new approach to elucidate the mechanism of hydration and hardening of cement, the knowledge of which contributes to the rational and efficient use of cement.

Article 7

Belimova O. A.
Management of occupational safety and health personnel in the international Lafarge Cement
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Key words: labour protection, health personnel, biodiversity, managing standard for health and safety, reclamation, collective agreement

Abstract

The labour protection and health personnel – the number one priority in Lafarge Cement. Considered activities to promote compliance with the rules and standards of safety and health personnel, the features of the foreign company in the implementation of the work in this direction.