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Practical Methods for Analysis of Chemical Composition of Portland Cement

Seyyed Alborz Majzoob Hosseini X, Shahram Poorzare, Elham Ameri*, Amir Hakimi Asiabar, Maryam Behzadpoor, Mina Eshtad

1. Founder and Researcher of Abadgaran Chemical Technology Development Research Group, Abadgaran Construction Chemical Industry CO, Tehran, Iran, Alborz@Abadgarangroup.com
2. Researcher at Abadgaran Chemical Technology Development Research Group, S.Poorzare@Abadgarangroup.com
3. Researcher at Abadgaran Chemical Technology Development Research Group, Ameri4239@gmail.com
4. Researcher at Abadgaran Chemical Technology Development Research Group, Amir.Asiabar64@gmail.com
5. Researcher at Abadgaran Chemical Technology Development Research Group, Amir.Asiabar64@gmail.com
6. Researcher at Abadgaran Chemical Technology Development Research Group, Amir.Asiabar64@gmail.com

Abstract (Times New Roman 14pt in Bold)

The performance of Portland cement in concrete or mortar formation is very well influenced by chemical compositions among other factors. Many engineers usually have little information on the chemical compositions of cement in making decisions for the choice of commercially available Portland cement in the world. In this work demonstrated and recommended for using reference and standard methods for chemical analyzed Portland cement. Specific chemical methods for analysis are presented in this review. They are grouped as reference and standard methods. The insoluble residues; silicon dioxide; ammonium hydroxide group; ferric oxide; phosphorus pentoxide; titanium dioxide; zinc oxide; aluminum oxide, calcium oxide; magnesium oxide; loss on ignition; sodium and pottasium oxides; manganic oxide; chloride; and, chloroform soluble organic substances, Reference Methods are summarized.

Key words: Portland Cement, Chemical Composition of Cement, Insoluble Residue, Los of Ignition.

1. Introduction

Cements may be defined as adhesive substances capable of uniting fragments or masses of solid matter to a compact whole. Such a definition embraces a large number of very different substances having little in common with one another but their adhesiveness, and