

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 597

DEFINITIONS AND TERMINOLOGY OF CEMENTS

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 597, *Definitions and Terminology of Cements*, was drawn up by Technical Committee ISO/TC 74, *Hydraulic Binders*, the Secretariat of which is held by the Institut Belge de Normalisation (IBN).

Work on this question by the Technical Committee began in 1952 and led, in 1962, to the adoption of a Draft ISO Recommendation.

In January 1965, this Draft ISO Recommendation (No. 771) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Argentina	Ireland	Romania
Australia	Israel	Spain
Austria	Italy	Sweden
Belgium	Japan	Turkey
Czechoslovakia	Korea, Rep. of	U.A.R.
Denmark	Netherlands	United Kingdom
France	New Zealand	U.S.A.
Hungary	Poland	U.S.S.R.
India	Portugal	Yugoslavia

Two Member Bodies opposed the approval of the Draft:

Germany
Norway

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in August 1967, to accept it as an ISO RECOMMENDATION.

DEFINITIONS AND TERMINOLOGY OF CEMENTS

1. SCOPE

This ISO Recommendation lays down the general definitions applicable to cements, as well as the particular definitions and the denominations which pertain to each type of cement.

2. GENERAL DEFINITIONS

2.1 Cement

Finely ground material forming, by the addition of an appropriate quantity of water, a more or less liquid binding paste, capable of hardening both under water and in air and of binding together appropriate material. The compositions and denominations should be in conformity with the present ISO Recommendation.

2.2 Principal component materials

- 2.2.1** *Properties of principal component materials.* The principal materials used in the manufacture of cement have either hydraulic or pozzolanic properties.

Hydraulic properties. The ability of a material to set and harden in the presence of water, with formation of stable compounds.

Pozzolanic properties. The ability of a material to combine with lime at ambient temperature and in the presence of water in order to produce compounds having hydraulic properties.

- 2.2.2** *Portland clinker.* A product consisting mostly of calcium silicates which is obtained by heating to partial fusion a predetermined and homogeneous mixture of materials principally containing lime (CaO) and silica (SiO₂) with a smaller proportion of alumina (Al₂O₃) and iron oxide (Fe₂O₃).