Standard Definitions of
TERMS RELATING TO MAGNESIUM OXYCHLORIDE AND
MAGNESIUM OXYSULFATE CEMENTS

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This Standard of the American Society for Testing Materials is issued under
the fixed designation C 376; the final number indicates the year of original
adoption as standard or, in the case of revision, the year of last revision.

Aggregate.—Any hard inert material in
graduated sizes for mixing with a cementing
material. (C 238)

Compressive Strength.—A property of
solid material that indicates its ability to
withstand a compressive load. (C 246,
257, C 275)

Consistency.—A degree of viscosity de-
fined by the flow under specified force.
(C 249, C 255)

Filler.—Nonfibrous inert materials such as
silica, limestone, tufa, etc., in particle sizes
passing a No. 200 (149-micron) sieve.
Fibrous materials such as sawdust, as-
bestos, and the like, in particle sizes
passing a No. 20 (840-micron) sieve, for
mixing with a cementing material.
(C 238)

Flexural Strength.—A property of solid
material that indicates its ability to
withstand a flexural or transverse load.
(Synonymous with Transverse Strength
and Modulus of Rupture.) (C 246, C 256,
C 275)

Gaging Ratio.—The ratio of oxychloride
magnesia to gaging solution used in
mixing a magnesium oxychloride cement
and usually expressed as pounds of MgO
gallon of gaging solution. (C 251)

Gaging Solution.—A water solution of
magnesium chloride, with or without
MgSO₄·7H₂O equivalent to 10 per cent
of the weight of MgCl₂·6H₂O of desig-
nated concentration or specific gravity
for mixing with oxychloride cement
composition. (C 250)

Linear Change.—The change in length of
a specimen prepared and tested under
standardized conditions, expressed as the
percentage of the total length. (C 246,
C 253, C 275)

Linear Contraction.—The decrease in length
of a specimen prepared and tested under
standardized conditions, expressed as the
percentage of the total length. (C 246,
C 252, C 275)

Magnesia.—The chemical compound mag-
nesium oxide, MgO. (See Oxychloride
Magnesia)

Magnesium Oxychloride.—The cement-
tious matrix formed by the reaction
of oxychloride magnesia with gaging solu-
tion.

Magnesium Oxide Cement.—The con-
glomerated mass formed of various ag-
gregates and fillers cemented in a matrix
of magnesia oxychloride.

Magnesium Oxychloride Composition.—An
intimate mixture of various dry ingredi-
ents, including oxychloride magnesia,
which when mixed with gaging solution
forms magnesium oxychloride cement.

Nonplastic Contraction.—The decrease in
length from the time of final set to max-
imum contraction of a specimen prepared
and tested under standardized conditions,
expressed as the percentage of the total
length. (C 246, C 252, C 275)

Oxychloride Magnesia.—Magnesia of
quality suitable for the preparation
magnesium oxychloride cement. (Syn-
nomous with Plastic Calcined Magnesi-
Caustic Calcined Magnesite, Oxychlori-
Magnesite, and Plastic Calcined Ma-
nesite.) (C 275)

Setting Time.—The time in minutes re-
quired for a specimen prepared and test-
under standardized conditions to attain
specified degree of rigidity. (C 24,
C 254, C 275)

Standard Conditions.—Conditions of ten-
perature, humidity, and air velocity for
the preparation, storage, and testing of
oxychloride specimens. (C 251)

Westvaco Needle.—A needle of specific
dimensions and weight, which is used for
the purpose of determining setting tim
(C 254)