

TYPICAL CEMENT CERTIFICATE

Portland Cement type

III

Physical tests

Time of Set Vicat (minutes)

Initial..... 90

Final..... 220

Fineness

Specific surface
(Blaine) (m²/kg)..... 569

Retained on 45 µm
sieve (%)..... 1

False set

final penetration (%)..... 100

Autoclave

expansion (%)..... 0.08

Air content (%)..... 8

Compressive strength (MPa[psi])

1 day..... 26.6 [3860]

3 days..... 33.0 [4780]

7 days..... 37.4 [5420]

28 days..... 45.3 [6570]

Expansion of mortar bars

at 14 days (%)..... 0.014

Chemical analysis (%)

SiO₂..... 19.0

Al₂O₃..... 4.8

Fe₂O₃..... 3.6

CaO..... 60.4

Free calcium oxide..... 1.4

MgO..... 2.6

SO₃..... 4.4

Loss on ignition..... 1.8

Insoluble residue..... 0.5

Alkalies

(Na₂O equivalent)..... 0.94

Carbon dioxide (CO₂)..... 1.5

Limestone..... 4.1

Calcium carbonate (CaCO₃)

in limestone..... 84

Mineralogical Composition (Potential)

C₃S..... 48

C₂S..... 17

C₃A..... 7

C₄AF..... 11

**We hereby certify that the cement delivered complies
with the ASTM Standard C 150 and AASHTO M 85, Type III.**

For any information regarding this certificate, please contact our technical service at (418) 329-2100, ext. 3276.

**Michel Chabot, Eng.
Chemist Engineer**