

TYPICAL ANALYSIS CERTIFICATE

General Use cement type

GU

Physical tests

| | |
|---|-------|
| <u>Time of Set Vicat (minutes)</u> | |
| <i>Initial</i> | 115 |
| <i>Final</i> | 245 |
| <u>Fineness</u> | |
| <i>Specific surface</i> | |
| <i>(Blaine) (m²/kg)</i> | 393 |
| <i>Retained on 45 µm</i> | |
| <i>sieve (%)</i> | 5 |
| <i>False set (%)</i> | 63 |
| <u>Autoclave</u> | |
| <i>expansion (%)</i> | 0.10 |
| <i>Air content (%)</i> | 6 |
| <u>Compressive strength (MPa)</u> | |
| <i>3 days</i> | 26.4 |
| <i>7 days</i> | 30.9 |
| <i>28 days</i> | 37.8 |
| <u>Expansion of mortar bars</u> | |
| <i>at 14 days (%)</i> | 0.008 |

Chemical analysis (%)

| | |
|---|------|
| <i>SiO₂</i> | 19.1 |
| <i>Al₂O₃</i> | 4.8 |
| <i>Fe₂O₃</i> | 3.6 |
| <i>CaO</i> | 60.2 |
| <i>Free Lime</i> | 1.5 |
| <i>MgO</i> | 2.6 |
| <i>SO₃</i> | 3.8 |
| <i>Loss on ignition</i> | 1.9 |
| <i>Insoluble residue</i> | 0.5 |
| <u>Total alkali</u> | |
| <i>(Na₂O equivalent)</i> | 0.92 |

Mineralogical composition

| | |
|------------------------------|------|
| <i>C₃S</i> | 51.2 |
| <i>C₂S</i> | 16.2 |
| <i>C₃A</i> | 6.7 |
| <i>C₄AF</i> | 11.0 |

*We hereby certify that the cement delivered complies with the
CSA Standard A3000-13 requirements section A3001-13, Type GU.*

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

*Michel Chabot, Eng.
Chemist Engineer*