

APPENDIX 6.5

GENERAL SPECIFICATION**COCKBURN GENERAL PURPOSE COARSE GROUND CEMENT - TYPE GP/C**

Values stated within this specification are based upon test results from grab samples. Individual results may from time to time lie outside these ranges and such occurrence should not necessarily be regarded as failure of the sampled batch to conform to this general specification.

| Parameter | Method | Units | Typical | Range | AS3972-1997 Limits |
|--------------------------------|-----------|--------------------|---------|--------------|--------------------|
| Chemical Analysis | | | | | |
| SiO ₂ | XRF | % | 21.7 | 21.3 – 22.1 | |
| Al ₂ O ₃ | XRF | % | 5.1 | 4.8 – 5.4 | |
| Fe ₂ O ₃ | XRF | % | 2.8 | 2.6 – 3.1 | |
| CaO | XRF | % | 63.9 | 63.2 – 65.1 | |
| MgO | XRF | % | 2.4 | 2.0 – 2.8 | |
| SO ₃ | XRF | % | 2.5 | 2.1 - 2.7 | 3.5% max |
| LOI | AS2350.2 | % | 0.7 | 0.5 - 1.0 | |
| Chloride | ASTM C114 | % | 0.01 | 0.005 - 0.02 | |
| Na ₂ O equiv. | ASTM C114 | % | 0.50 | 0.45 - 0.60 | |
| Fineness Index | | | | | |
| | AS2350.8 | m ² /kg | 335 | 310 – 355 | |
| Normal Consistency | | | | | |
| | AS2350.3 | % | 27.0 | 25.0 – 28.0 | |
| Setting Times | | | | | |
| - Initial | AS2350.4 | mins | 110 | 105 – 120 | 45mins min |
| - Final | | mins | 170 | 150 – 195 | 10hr max |
| Soundness | | | | | |
| | AS2350.5 | mm | 1 | | 5mm max |
| *Compressive Strengths | | | | | |
| | AS2350.11 | | | | |
| | 3 day | MPa | 31 | 28 – 35 | |
| | 7 day | MPa | 44 | 40 – 48 | 25MPa min |
| | 28 day | MPa | 60 | 56 – 65 | 40MPa min |

*Normen standard sand used