

## CEMENT CLINKER

STALLION ENERGY'S Clinker is lumps or nodules, usually 3-25 mm in diameter, produced by sintering limestone and aluminosilicate during the cement kiln stage.

### Application

- Building Construction
- Ground granulated blast furnace slag cement
- Pozzolana cement
- Silica fume cement

Clinker is ground (usually with the addition of a little gypsum, that is, calcium sulfate dihydrate) to become Portland cement. It may also be combined with other active ingredients or chemical admixtures to produce. Clinker, if stored in dry conditions, can be kept for several months without appreciable loss of quality. Because of this, and because it can easily be handled by

ordinary mineral handling equipment, Clinker is also shipped to grinding plants in areas where cement-making raw materials are not available.



### TYPICAL PROPERTIES

| PHYSICAL REQUIREMENTS                             | LABORATORY TEST RESULT | Unit |
|---------------------------------------------------|------------------------|------|
| Loss on ignition (LOI)                            | 0.30                   | %    |
| Silica (SiO <sub>2</sub> )                        | 21.56                  | %    |
| Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> ) | 5.36                   | %    |
| Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )      | 4.00                   | %    |
| Calcium Oxide (CaO)                               | 64.65                  | %    |
| Magnesium Oxide (MgO)                             | 1.22                   | %    |
| Sulphuric Anhydrous (SO <sub>3</sub> )            | 0.48                   | %    |
| Insoluble Residue (IR)                            | 0.26                   | %    |
| SM                                                | 2.30                   |      |
| MA                                                | 1.34                   |      |
| LSF                                               | 0.93                   |      |
| C <sub>3</sub> S                                  | 52.09                  |      |
| C <sub>2</sub> S                                  | 22.60                  |      |
| C <sub>3</sub> A                                  | 7.44                   |      |
| C <sub>4</sub> AF                                 | 12.16                  |      |
| MECHANICAL TESTING                                | LABORATORY TEST RESULT | Unit |
| <b>SOUNDNESS TEST</b>                             |                        |      |
| Le-Chatelier Expansion                            | Nil                    | mm   |
| Auto Clave                                        | 0.09                   | %    |
| <b>COMPRESSIVE STRENGTH</b>                       |                        |      |
| 3 Days                                            | 48                     | MPa  |
| 7 Days                                            | 63                     | MPa  |
| 28 Days                                           | Awaited                | MPa  |