

CEMENT

Technical data sheet

Powercrete plus

Portland limestone cement
52,5N



Premium technical cement with
excellent strength performance,
versatility and extendability



 A member of
LafargeHolcim

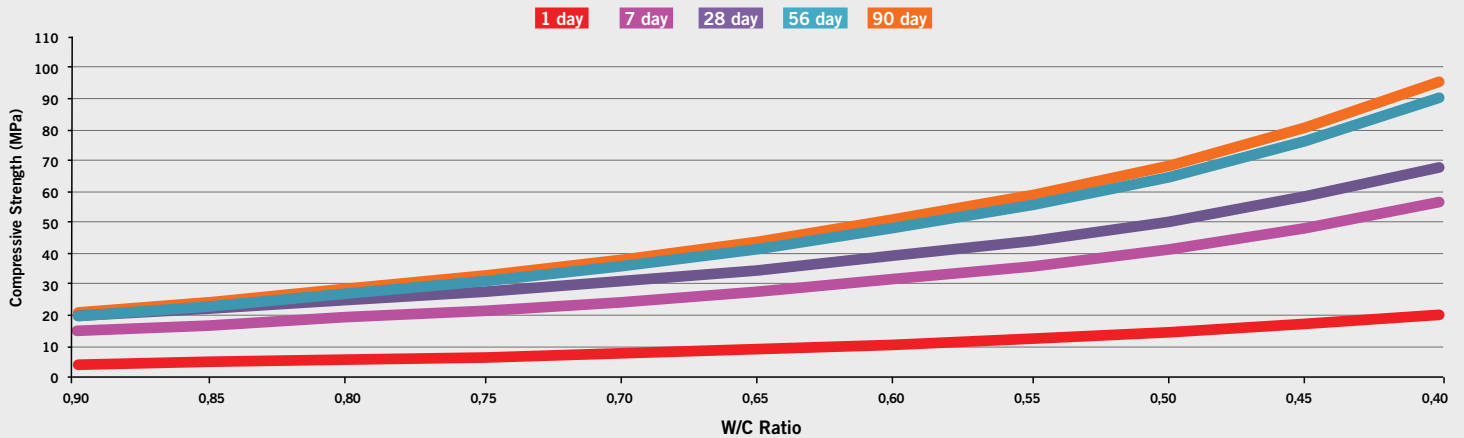
Composition

- Powercrete plus is manufactured at Lichtenburg as a CEM II/A-L 52,5N Portland Limestone cement in accordance with SANS 50197-1 (EN 197-1)
- The product is available in 25 kg or 50 kg bags and bulk

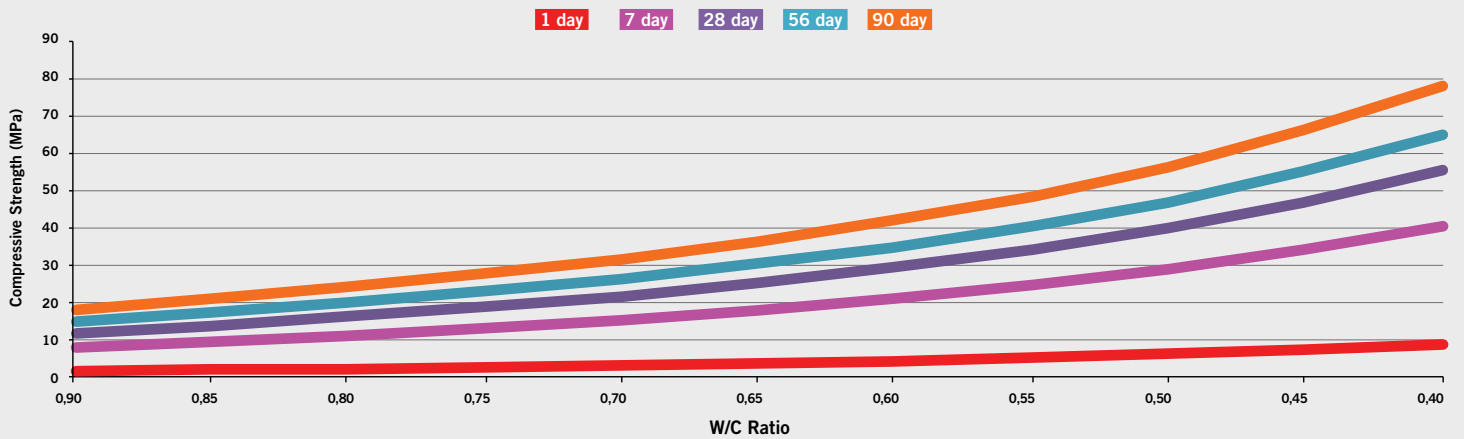
Strength performance

The product meets the high, good early strength requirements of specialist technical applications, such as post-tensioning of prestressed beams, while maintaining good extendability with supplementary cementitious materials, e.g. fly ash and slag.

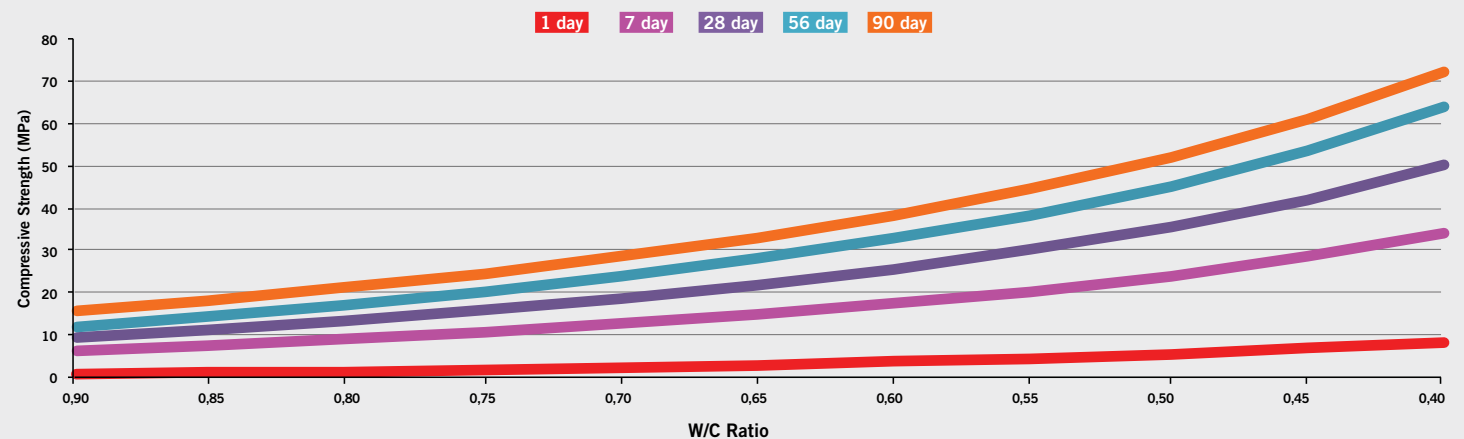
Powercrete plus



Powercrete plus & 30% DuraPozz



Powercrete plus & 40% DuraPozz



Quality

Powercrete plus complies with the chemical and physical requirements of SANS 50197-1 (EN 197-1). While the Lafarge name is a world-wide assurance of quality, the Powercrete plus bag also displays the following locally regulated quality symbols:

- LOA number
- SABS mark
- e-Mark

Physical properties

Property	Powercrete plus*	SANS 50197-1 (EN 197-1) requirement
2 day compressive strength	25 MPa	≥ 20,0 MPa
28 day compressive strength	58 MPa	≥ 52,5 MPa
Initial set	220 min	≥ 60 min
Soundness	1,0 mm	≤ 10 mm

Chemical properties

Property	Powercrete plus*	SANS 50197-1 (EN 197-1) requirement
SO ₃	2,15% m/m	≤ 3,5% m/m
Cl ⁻	0,037% m/m	≤ 0,10% m/m

Special properties

Property	Powercrete plus*	SANS 50197-1 (EN 197-1) requirement
HOH - Heat of Hydration	260 J/g	< 270 J/g at 41 h (as per EN 196-9)

*Typical test results

Special characteristics

- The product is designed to be further extended with fly ash or slag to produce customised site blends
- Reduced water demand: between 2% and 5% less compared with a CEM I class cement





Applications

- High early age strength gain for post-tensioning and precast item manufacturing
- Custom blends for dam and reservoir construction; structural concrete applications; tunnel lining
- Versatility: can be used for general concrete work around the home, driveways, columns, suspended slabs, and industrial floors

Technical support

- Powercrete plus is fully supported by the unique technical and laboratory resources of the Lafarge Integrated Solutions and Innovation Centre (ISIC). ISIC operates one of the largest and most respected SANAS accredited Civil Engineering testing facilities in South Africa.
- Complying with ISO/IEC 17025, the ISIC facility has a proud record of continuous accreditation since 1996.

Storage & handling

- Stored cement must not be exposed to moisture
- Preferably store bags in a shed on plastic sheeting or pallets
- Only stack pallets two high – three is unstable and unsafe
- Close windows and doors to prevent damp air blowing over the bags
- Make tidy stacks with wide aisles to avoid damage by forklifts
- If stored outside, stack loose bags on pallets or timber slats under plastic sheeting
- Make a ridge with the sheeting so that rain runs off
- Cement deteriorates with time, therefore plan your stacks so that the first-in bags can conveniently be the first out (FIFO)
- When lifting bags of cement, keep a straight back and bend at the knees
- Handle bags carefully to avoid tearing the plastic

Safety

Before starting any job, make safety the first step in your planning. Safety datasheets are available from:

- Lafarge Integrated Solutions and Innovation Centre (ISIC) on 011 226 3600
- Lafarge South Africa website: www.lafarge.co.za

Ordering

Place orders for Powercrete plus via:

- Lafarge Cement Call Centre on 011 657 1122
- Your local Lafarge Sales Representative

Contact us

For further information on Powercrete plus

- Please speak to your local Lafarge Sales Representative
- Lafarge Cement Call Centre on 011 657 1122
- For technical queries, please contact Lafarge ISIC on 011 226 3600