

Technical Data Sheet (TDS)

K20

Description

K20 is a multi-purpose hydraulic binder admixture which offers improved performance characteristics in concrete systems where desired. It can be tailored to suit client's needs.

K20 offers an extended work time for the curing process, allowing users to navigate typical issues which arise when trying to place or spray concrete, e.g., logistics, space and travel distance.

K20 contains dosed amounts of flow, set and workability additives. Simply add to cement mixer / agitator.

Recommended Uses

Common, non-structural applications would be:

- Fast set concrete
- Concrete repair
- Pre-cast addition
- Rapid construction
- Basement / ground level carpark
- Mine roadways / outbye
- Highways
- Rapid pavement development

Features & Benefits

- Pourable, typical slump, typical flow
- Rapid early strength
- Improved late strength
- Lower CO₂ output (compared to 100% OPC)
- Lowered pH
- Controlled performance
- Can be slowed to improve workability
- Increased mine development
- Additional time vs metres advancement
- Increased working time to suit your needs

Performance Data

	COMPRESSIVE STRENGTH (UCS)*
2 hours	20MPa
4 hours	30MPa
1 day	40MPa
7 days	60MPa
28 days	(Greater than) 60MPa

W:P Ratio @ 0.43

AS1478.2. 100mm cubes at 23 °C (± 2 degrees)

Recommendations may be offered by the manufacturer, however, tabulated data is based on the following: N40 concrete with a nucleus of 400kg m³ ordinary Portland cement (OPC), to be replaced at 30% base value of cement. This ratio must be adhered to. 70% local sourced OPC with 30% addition of **K20**.

For chemical properties please refer to the relevant SDS.

Set Times*

Initial set: 30 minutes

Final set: 60 minutes

Note: *from mixing.

Please note these are laboratory generated test results under controlled conditions, and this testing cannot replicate in-situ or field/practical results.

Water: Powder ratio [W:P]

A water powder ratio of 0.40-0.46:1 by weight of total binder content. Alternatively, 0.07:1 total water content based on mass. Excess water may negatively affect overall product performance.

Bleed / Shrinkage

None.

Wet Density

At W:P 0.43, wet density is 2400m³

Yield / Addition rate

Addition of **K20** will not alter final yield of fresh concrete under normal conditions.



GreenTech Cement Ltd

Corporate Office – Queensland

Toowoomba City QLD 4350

Phone +61 7 3154 5361

Email info@greentechcement.com

Web www.greentechcement.com

ABN 88 653 151 761

Revision 2, Date: 28.08.2021

Technical Data Sheet (TDS)

K20

Application

K20 is designed to replace OPC by 30% and achieve excellent early strength. The use of and application of, may be treated the same as typical concrete placement. For improved workability, by way of increasing set time, refer to K20E or contact the GreenTech technical department.

Surface Preparation

Surface should be prepared using the same or current industry methods. No special preparation is required that is not normally current practice.

Mixing

Mixing should be undertaken in an efficient mixer, and / agitator by adding the powder to water. Clean potable water required.

Product Options

For further road and road repair options, please contact GreenTech Cement Ltd regarding Hi-Sorb, Rapid Road, 2 Pak Road, or K20E.

Storage and Shelf Life

If kept in its original packaging in a dry environment, shelf life of at least 6 months is to be expected. This time may be reduced if the product is subject to elevated temperatures or humidity. Bulk bags are expected to remain covered in plastic until use.

Packaging

K20 is packaged in 20kg bags or 1.0/1.2 tonne bulk bags. Other packaging options are available on request. Pneumatic tanker options may be available at a later date.

Packing slips will state batch manufacture date and batch number for QC traceability.

Health and Safety

- Avoid contact with skin and eyes. Wear suitable protective clothing.
- Avoid inhalation or ingestion.
- In case of contact with skin or eyes, rinse immediately.
- Seek medical attention immediately if ingested.

Please refer to the relevant SDS for further information. See www.greentechcement.com or contact us.

Disclaimer

The technical information and application advice summarised in this document is based on our current practical knowledge. Intending users should read this TDS as well as the SDS and consider the information provided in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

We accept no responsibility for loss or injury caused by improper use, incompetent preparation or ordinary wear and tear.

Our responsibility for product sold is subject to our standard terms and conditions; no warranty expressed is implied as GreenTech Cement Limited has no control over mix design, handling or use of the product.

Contact

GreenTech Cement Limited
9 Holt Drive, Torrington
Queensland 4350

Email: info@greentechcement.com
Phone: +61 7 3154 5361 / 0423 058 886
www.greentechcement.com



GreenTech Cement Ltd

Corporate Office – Queensland

Toowoomba City QLD 4350

Phone +61 7 3154 5361

Email info@greentechcement.com

Web www.greentechcement.com

ABN 88 653 151 761

Revision 2, Date: 28.08.2021