



CONSTANT PERFORMANCE

ACS SHOTCRETE XL

NEW AGE TECHNOLOGY SHOTCRETE

DESCRIPTION

ACS Shotcrete XL is a pre-packaged AS3972-2010 Portland cement based shotcrete mix that can be used in either wet or dry-mix processes. Caution should be observed when conducting overhead or vertical spraying applications with this product.

Should overhead or vertical applications be common to the project, use of ACS Minespeed F1 shotcrete accelerator should also be considered.

In overhead or vertical applications, please seek technical advice from your local ACS representative prior to proceeding with your project.

ACS Shotcrete XL is made with accurately mass-batched blends of Portland cement, silica fume, sand and coarse aggregate and is commonly used in mining, tunnelling and civil projects.

RECOMMENDED USES

- Mining applications, including ground support and lining of portals, shafts, drifts, raises, loading pockets, ore passes and underground chambers
- Ground support and slope stabilization
- Linings of tunnels and connecting shafts
- Support and formwork for retaining walls
- Concrete repair to structures such as bridges, dams, sewers, canals, reservoirs, and cooling towers
- Repair to marine structures including wharves, jetties, piles, and sea walls
- Repair to buildings and structures such as parking structures, grain silos, and chemical handling facilities

FEATURES AND BENEFITS

ACS Shotcrete XL offers many advantages to owners, contractors, and engineers particularly in situations where conventional formed concrete construction would not be appropriate or cost effective. The main advantages are:

- Supplied ready to use under stringent quality control standards
- Suitable for both wet and dry-mix processes
- Suitable for overhead applications to specified thicknesses
- Greater thickness build-up in a single pass relative to conventional shotcrete, particularly in the dry-mix process
- Substantial reductions in rebound
- Superior bond
- High early strengths to reduce down time
- Easily pumped and applied

PACKAGING

The product is available in 20kg bags and 1 tonne bulk bags.

COVERAGE RATES

One 20kg bag of ACS Shotcrete XL mixed with the required water will yield approximately 10.2 litres or 0.0102m³.

Calculations of coverage need to include provision for rebound waste and any waste during the cut off finishing procedure.

The approximate allowance for rebound is 5 - 10% not including cut-off.

This rebound percentage has been calculated based on the shotcrete being applied by an experienced applicator during ideal atmospheric conditions.

TECHNICAL PROPERTIES

| Age | Compressive Strength (MPa) | Flexural Strength (MPa) |
|---------|----------------------------|-------------------------|
| 1 day | 8 | - |
| 7 days | 40 | 3 |
| 28 days | 60 | 5 |

Note: Reasonable variations to the above data can be expected, as strengths may vary due to job site conditions, weather, curing procedures and levels of expertise during application.

APPLICATION

The surface to be shotcreted shall be prepared by removing all unsound concrete and debris. When using ACS Shotcrete XL in structural repairs ensure that the substrate is clean from detergents and oils and is properly prepared. Additionally the repair zone should be saturated with clean water for a minimum of 5 - 7 hours prior to shotcreting.

For best results mix ACS Shotcrete XL with at least 1.8 litres and no more than 2.0 litres of potable water per 20kg (230 litres / m³).

ACS Shotcrete XL can be applied in depths of 10 - 100mm in one pass depending on the shotcrete method used and substrate and weather conditions.

CLEANING

All tools should be rinsed with water immediately after use to remove all traces of ACS Shotcrete XL (SF4).

STORAGE AND SHELF LIFE

If kept dry and stored in its original condition, ACS Shotcrete XL will keep for at least 6 months. The shelf life of the product may be reduced if subjected to high temperatures and high humidity.

HEALTH AND SAFETY

During use, avoid inhalation of dust and contact with the skin and eyes. Wear suitable clothing, gloves, eye protection and respiratory protective equipment.

If contact with the skin occurs, thoroughly clean the area with plenty of fresh water and soap. In case of contact with the eyes rinse with plenty of fresh water and seek medical advice.

If swallowed, seek medical attention immediately - do not induce vomiting.

For further information consult the Material Safety Data Sheet (MSDS) and read the product label carefully before use.

MSDS documents are available by phoning 1800 077 744.



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PLEASE NOTE

The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.

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