



CONSTANT PERFORMANCE

ACS NEAT-KRETE WR

NEW AGE TECHNOLOGY SHOTCRETE

DESCRIPTION

ACS Neat-Krete WR is a pre-packaged, water resistant, cement based shotcrete product for use in mining, tunnelling and civil construction industries.

ACS Neat-Krete WR is a single application product which due to its exclusive formulation, provide excellent adhesion of the shotcrete to hard and soft strata while also providing exceptionally low rates of rebound waste and airborne dust levels.

ACS Neat-Krete WR will also produce an impermeable membrane of the applied product to lessen the likelihood of water penetrating the constructed shotcrete barrier therefore offering extended durability and reduced chloride penetration.

RECOMMENDED USES

ACS Neat-Krete WR can be used in a wide range of civil engineering and mining applications especially where water is prevalent. Typical areas of use include but are not confined to:

- Mining applications, including ground support and lining of portals, shafts, drifts, raises, loading pockets, ore passes and underground chambers and ventilation control projects
- 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 Neat-Krete WR offers many advantages when compared to traditional types of dry packed shotcrete products currently circulated within the market.

The distinct features of ACS Neat-Krete WR allow for improved operator safety and comfort during application whilst providing a versatile, cost effective solution to mine owners, civil contractors, and engineers looking to improve the conditions and stability of the underground project or slope stabilisation.

The main advantages are:

- Manufactured under stringent quality control standards and supplied ready to use
- Ease of application with low water to powder ratio's (approx. 0.1:1 recommended = 0.37 - 0.39 Water / Cement ratio)
- Fast setting (1 hour) and high early age strength help reduce down time
- Smooth flat finish
- 90% less airborne dust
- Using ACS Neat-Krete WR Operators and Contractors can expect up to 75% reduction of rebound waste when ACS Neat-Krete WR is applied under normal application methods and rates
- Elimination or reduction in formwork
- Greater thickness build-up in a single pass relative to conventional shotcrete, particularly in the dry-mix process
- Convenient and accurate - supplied ready to use under stringent quality control standards
- Single, easy application in dry-mix spray systems
- Minimal rebound in dry sprayed processes
- Superior bond
- High early strengths for early re-entry to work area
- Elimination or reduction in formwork
- Greater thickness build-up in a single pass relative to conventional shotcrete, particularly in the dry-mix process
- Substantial reductions in rebound, particularly in dry-mix process
- Superior bond
- High early strengths help reduce down time

PACKAGING

ACS Neat-Krete WR is available in 20kg bags and 960 kilogram bulk bags.

COVERAGE RATE

One 20kg bag of ACS Neat-Krete WR 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

Under normal application methods the approximate allowance for rebound is between 5 - 10% not including cut-off. Do not calculate rebound to be sufficient to form a base or foot wall.

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

TECHNICAL PROPERTIES

Typical properties when ACS Neat-Krete WR is mixed with potable water and tested at 25°C and 50% RH.

Density	~2220 - 2260 kg / m ³
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Compressive Strength (MPa) AS1478.2 - 2005 Appendix A (Restrained)	
Age	Compressive Strength
24 hours	30
7 days	49
28 days	57

These results are calculated from a mean value of three UCS cores for each age as detailed on NATA test certificate CON: W12 / 5524.

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 sprayed shall be prepared by removing all unsound materials and debris.

ACS Neat-Krete WR can be applied in depths of 10 - 100mm in one pass depending on the shotcrete method used as well as substrate and weather conditions.

CLEANING

All tools should be rinsed with water immediately after use to remove all traces of ACS Neat-Krete WR.

STORAGE AND SHELF LIFE

If kept dry and stored in its original condition, ACS Neat-Krete WR 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, inexperienced 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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