APPLIED concrete SOLUTIONS
CONSTANT PERFORMANCE

ACS CLASS M4 MORTARS

NEW AGE TECHNOLOGY MORTAR

DESCRIPTION

ACS Class M4 mortar is a pre-mixed mortar containing Portland cement, lime and sand. ACS Class M4 mortars is packaged in an automated, quality assured facility which ensures a high quality and consistent product.

ACS Class M4 mortar class comply to AS3700-Masonry Structures, Table 11.1 and is primarily designed for installation with clay bricks and concrete blocks.

ACS Class M4 mortars should be installed by competent, experienced trades persons in order for their full aesthetic and service life potential to be realised.

Only water should be added to the product as it contains all components required to produce a workable, consistent mortar.

PACKAGING

Available in 20kg paper bags, 48 bags per pallet.

PERFORMANCE CHARACTERISTICS

Structural and Durability Requirements

ACS Class M4 mortars are “deemed to satisfy M4 mortar class mortars” which meet the requirements of clause 11.4.1 (b) of AS3700 - 2018 Masonry Structures, that is in conjunction with masonry units they provide the structural properties and appropriate durability required for the given situation.

Colours

A range of three (3) colours to choose from

- Class M4 – Grey
- Class M4 – White
- Class M4 – Charcoal

CCS Pigment Concentrates (oxides) can be added to colour either ACS Class M4 - Grey or White to achieve the desired colour. Ensure no greater than 300 grams CCS Pigment Concentrate Is added per bag. Measurement should be by weight and not volume. Colour should be mechanically mixed prior to placement. Allow coloured sample to dry for a minimum of 4 days prior to Inspecting and approving colour as colour will change during the drying period.

APPLICATIONS AND LIMITATIONS

Use clean, potable water for mixing.

Water used should be gauged/measured according to the number of bags being mixed.

Accurate, consistent water gauging will provide uniform mortar properties such as consistency, strength and colour to be produced.

Product should be mechanically mixed for 3-5 minutes in a drum mixer to allow full development of properties.

Do not use additional air entraining admixtures with this product.

Product should not be applied if temperature is less than 5°C.

Protect freshly installed product from rain for 24 hours.

Dry storage of product is essential. Under normal storage conditions a shelf life of around 12 months from the date of manufacture can be expected.

DENSITY

1800-1900 kg/m^3 (wet)

MIX RATIO

Each 20kg of ACS Class M4 Mortar requires clean potable water according to the table below.

Product	Water per 20kg bag (litres)
Class M4 Grey Mortar	3.4 - 3.6L
Class M4 White Mortar	3.2 - 3.4L
Class M4 Charcoal Mortar	3.1 - 3.3L

COVERAGE

A 20kg bag of ACS Class M4 Mortar will allow 26 standard clay bricks (230 x 110 x 76mm) or 15 concrete masonry blocks (400 x 200 x 200 – Fully bedded) to be installed.

EFFLORESCENCE

Efflorescence is a powdery material that can form on the surface of some building and construction materials. Products like clay bricks and pavers, concrete blocks and pavers, concrete, mortar and renders can at times exhibit efflorescence. Efflorescence consists of crystallised minerals/ salts that have been deposited on the surface of the material through evaporation of moisture from its surface. The minerals or salts can be derived from within or external to the material they form on.

Many construction materials contain Portland cement which produces calcium hydroxide (sometimes called lime) as a by-product from its hydration/hardening. This is a common, natural source of temporary efflorescence on materials that contain or are in contact with Portland cement.

Hence any material that contains or is in contact with Portland cement has a latent capacity for efflorescence during its early service life. Most efflorescence that forms on new construction or building materials is temporary, unless it is exposed to a continuous or semi-continuous source of moisture containing dissolved minerals e.g. ground water.

Porous products or materials that can exhibit capillary moisture movement are more susceptible to efflorescence. Hence hardened mortar containing Portland cement, which is porous and also allows capillary moisture movement, can exhibit efflorescence. Consequently, ACS Class M4 mortar which contains Portland cement and hydrated lime, can exhibit efflorescence under certain conditions. Cooler months of the year in combination with wet weather can be more conducive to the formation of efflorescence. Since ACS Class M4 mortar is used for the installation of clay/concrete bricks and blocks, the laid brickwork/blockwork typically displays efflorescence which can at times also be seen within mortar joints. Some measures which can be used to reduce the risk of efflorescence in brick/blockwork include

- Avoid storage of bricks and blocks with direct contact to the ground
- Use potable water for missing
- Fill mortar joints completely with mortar
- Cover unfinished work to protect from rain
- Where appropriate, the use of 'ironed' joints can reduce the risk of efflorescence forming on the surface of mortar joints.

Most efflorescence will usually disappear through natural weathering processes. This can be hastened by physical removal through brushing but is usually not necessary.

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 Safety Data Sheet (SDS) and read the product label carefully before use. SDS documents are available at www.appliedconcretesolutions.com.au or by calling 1800 077 744.

APPLIED concrete SOLUTIONS

CONSTANT PERFORMANCE

For further information consult the Safety Data Sheet and read the product label carefully before use. Safety Data Sheets are available by phoning 1800 077 744.

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.

APPLIED CONCRETE SOLUTIONS
A Division of River Sands Pty Ltd

Cnr Riverland & Monte Khoury Dr,
Loganholme QLD 4129, Australia

Brisbane: (07) 3412 8111
Sydney: (02) 9677 1056
Melbourne: (03) 9311 9225
Perth: 0423 023 164

Toll Free Helpline: 1800 077 744
www.appliedconcretesolutions.com.au