

# ROCKBOND SCP LTD

## FORMULATORS, MANUFACTURERS AND CONSULTANTS OF SPECIAL CONCRETE PRODUCTS

Newton's Farm Estate, Wissington, Nayland, Suffolk.CO6 4LX, England

Telephone: 01206 265116 Email: [info@rockbond.co.uk](mailto:info@rockbond.co.uk)

Website: [www.rockbond.co.uk](http://www.rockbond.co.uk)

### ROCKBOND UNDERWATER ADMIX 2401 POWDER

#### UNDERWATER ACCELERATING ADMIXTURE FOR GROUTS AND FLOWING CONCRETES

#### DESCRIPTION:

ROCKBOND UNDERWATER ADMIX 2401 (RB UWA2401) powder is a unique blend of admixtures which has been specially designed to produce cementitious grouts and flowing concretes for underwater applications. The compound contains a system of superplasticizers, anti washout agents, chloride free accelerators, stability aids and other ingredients to prevent wash out and segregation under pressure and pumping. The powder is ready to use, supplied to order, packaged in moisture proof, durable bags and has a shelf life of 5 years.

#### SPECIAL PROPERTIES:

- \* The complete admixture for accelerated underwater flowing cementitious materials.
- \* Can be packaged in water soluble bags for convenient handling and dosage.
- \* Minimises "fog" or dispersion when poured and placed underwater.
- \* Extremely stable, and will not breakdown, segregate or bleed.
- \* Readily pumpable, and stable under pressure.
- \* Produces accelerated cementitious materials which will resist wave action at an early age.
- \* Contains no deleterious substances harmful to aquatic life.
- \* High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.
- \* Long lasting shelf life of 5 years or more when bags are stored in a cool, dry and dark place

#### USES:

- + To produce cohesive, mobile, and free flowing, quick strength, underwater materials that are self smoothing and self compacting when ambient temperatures are low.
- + To produce cementitious materials that are washout resistant when brought into contact with water or running water situations.
- + To produce accelerated underwater grouts and concrete from site batched materials.
- + For use in concrete for the underwater void filling of seawalls, harbours, quays and jetties.
- + Concrete repairs to marine structures that have to resist wave action at an early age.
- + For use in flowing cementitious materials for the quick repair and consolidation of water retaining structures, dams, culverts, pillars and piers.
- + To produce quick strength concrete to prevent abrasion from mechanical attack and scour.
- + Materials for waterlogged foundations, anchorages, pilings, conduits, pipes and sewers.

#### MIXING INSTRUCTIONS:

ROCKBOND UNDERWATER ADMIX 2401 cementitious grouts and concretes are mixed with water using a ROCKBOND CONCRETE STIRRER (RB CS), an electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC). Use a ROCKBOND FORCED ACTION PAN MIXER 120 Litres (RB FAPM120) to mix larger amounts of material.

ROCKBOND UNDERWATER ADMIX 2401 powder is added to and dispersed in the mix water. The dosage rate is normally 10% by weight of cement contained in the mix: 10kg of the ROCKBOND UNDERWATER ADMIX 2401 powder per 100kg of cement.

## ROCKBOND UNDERWATER ADMIX 2401 (RB UWA2401) POWDER CONTINUED...

### APPLICATION PROCEDURE:

Carry out and finalise any preparation necessary before mixing and applying the grout or concrete. Ensure that all surfaces with which the grout or concrete comes into contact with are clean and free of marine growth. A water jet will produce a good and strong substrate on which to apply the material.

Start the mixer. Add the appropriate amount of the admixture to the mix water, and let the powder disperse. Add the remaining ingredients of the grout or concrete, and mix until homogeneous.

For the treatment of ready mixed concrete: the admixture can be spread over the aggregate belt at the plant and added to the mix water in the truck. For on site application, the level of the concrete at the back of the truck is raised to the point of discharge and the admixture is spread evenly over the surface of the concrete and the concrete is mixed for a few minutes before discharge. ROCKBOND UNDERWATER ADMIX 2401 accelerated concrete will not "flash set" in the truck.

For the application of mortars and non flowing concretes at temperatures of 20°C approximately, or when ambient temperatures are high and there is time to place the concrete before it goes off, then use ROCKBOND UNDERWATER ADMIX 2301 (RB UWA2301) for non flowing, cementitious materials.

### TECHNICAL DATA:

As a guide: for a concrete containing 500kg/m<sup>3</sup> of cement, at a water/cement ratio of 0.35, to achieve a strength of 5MPa at 2 hours, 20MPa at 4 hours and 30MPa at 6 hours use: 5% UWA2401 by weight of cement at 20°C, 10% UWA2401 at 15°C, 15% UWA2401 at 10°C, and 20% UWA2401 at 5°C and below.

### HEALTH, SAFETY AND STORAGE:

ROCKBOND UNDERWATER ADMIX 2401 powder is non toxic and safe to use. However, use the same precautions as with any cementitious product: wear goggles, protective clothing and a dust mask while mixing and applying the material. Consult the relevant MSDS for further details. Store in a cool, dry, dark place.

### FURTHER INFORMATION:

Should you require further information on this product, or details of other ROCKBOND SPECIAL CONCRETE PRODUCTS, then please do contact our Technical Department:

Gilbert Cox BSc,  
Technical Director,  
Rockbond SCP Ltd.,  
Newton's Farm Estate,  
Wissington, Nayland,  
Suffolk, CO6 4LX, England.

Telephone: 01206 265116,  
Facsimile: 01206 265117,  
**Email: [info@rockbond.co.uk](mailto:info@rockbond.co.uk)**  
**Website: [www.rockbond.co.uk](http://www.rockbond.co.uk)**

<https://rockbond.co.uk/products/rockbond-underwater-admix-2401-rb-uwa2401/>

### IMPORTANT NOTE:

ROCKBOND SCP LTD provides the above information in good faith and without warranty. The data represents typical values which can be updated at any time, and this information supersedes previous issues. No liability can be accepted for any damage or loss arising from the use of ROCKBOND SCP LTD literature or its products, because the company has no continuous control on how the products are mixed, placed or cured.

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