

BUILDING CHEMICALS SPECIALISTS

UNIROC EXP100

Expanding and Plasticising Grout Admixture

USES

- Admixture for site batched cementitious grouts where a reduced water/cement ratio and positive expansion is required.

ADVANTAGES

- Gaseous expansion system compensates for plastic shrinkage and settlement in properly designed cementitious grout.
- Reduced water/cement ratio in the grout mix ensures low permeability and long-term durability in service.
- Gives high grout fluidity with low water/cement ratio, thus making placement or injection of the grout easy.
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Composition allows high early strength development in grouts, Without the use of chlorides.

PRODUCT DESCRIPTION

UNIROC EXP100 is a powder mixture containing a plasticising agent and a gas producing expansion medium. The plasticising agent allows the use of a reduced water/cement ratio with consequent increased strengths and durability. The expansive medium counteracts the natural settlement and plastic shrinkage of the grout and aids stability and cohesion.

Sufficient restrained expansion is developed to ensure a high degree of interfacial contact.

UNIROC EXP100 contains no chloride.

Compressive strength: The plasticising action of **UNIROC EXP100** allows reduction of the water/cement ratio of cementitious grouts whilst maintaining flow properties. This gives improvement in strength and long-term durability when cured under restraint.

Setting Time: **UNIROC EXP100** does not significantly affect the setting times of cement based grouts.

Expansion Characteristics: The controlled positive expansion in unset grouts incorporating **UNIROC EXP100** overcomes plastic settlement when measured in accordance with ASTM C827. An unrestrained expansion of up to 4% is typical.

Time for Expansion: 15 minutes – 2 hours. Temperatures above 20°C may slightly reduce these times.

INSTRUCTIONS FOR USE

Mixing

For best results a powered grout mixer must be used. For quantities up to 50 kg a slow speed drill fitted with a special mixing paddle is suitable. Larger quantities will require a high shear vane mixer. The selected water content should be accurately measured into the mixer. Slowly add the cement (and sand if required) and **UNIROC EXP100**. Mix continuously for 5 minutes, making sure that a smooth even consistence is obtained.

Application

Areas to be grouted should clean and sound and pre-wetted. The unrestrained surface area of the grout must be kept to a minimum. Place the grout within 20 minutes of mixing to gain the full benefit of the expansion process. Adopt usual placing or pumping procedures ensuring a continuous operation.

Curing

On completion of the grouting operation, any exposed areas which are not to be cut back, should be thoroughly cured by means of water application or using a curing membrane or a wet hessian.

Dosage

OPC	Concreting Sand	Water	UNIROC EXP100	Appr. Yield
50 kg	-	20-22 litres	225 g	36 litres
50 kg	50 kg	22-24 litres	225 g	57 litres

PRECAUTIONS

Health and Safety

When mixing grouts with **UNIROC EXP100**, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. In case of contact with skin rinse skin with plenty of water, then cleanse with soap and water. In case of contact with eyes rinse immediately with of clean water and seek medical advise.

PACKAGING

UNIROC EXP100 is supplied in tabs of 225 grams.

STORAGE

UNIROC EXP100 has a shelf life of 12 months if kept in a dry store in its original packaging. High temperatures and humidity storage may reduce this period.

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