

LUL RAPIDESET

FAST SETTING MORTAR PRE-MIX

DESCRIPTION

LUL RAPIDESET is a fast setting and fast curing mortar with a rapid strength gain that is resistant to chloride penetration, consisting of a blend of NATCEM Potable Water Approved Cement Binder, specially selected dried graded aggregates all passing a 250 micron sieve and food grade retarders.

PROPERTIES

- Fast Setting.
- Excellent adhesion.
- Low shrinkage.
- Low modules of elasticity, which makes it very effective on poor or friable substrates.
- Excellent resistance to pure water & sulphated water.
- Excellent resistance to aggressive chemicals.
- Very good cohesion & mixing.
- Fine compact surface.
- No curing necessary. It can be coated, covered or painted as soon as setting is complete.
- Can be used in wet conditions.
- Can be used under water.

USES

LUL RAPIDESET is used for horizontal, vertical and overhead concrete repairs, patching floor screeds, in contact with potable water, repairs to sewers, work around the sea, where early strength is required and wherever pollution or chemical attack is likely.

METHOD OF USE

PREPARING THE SURFACE.

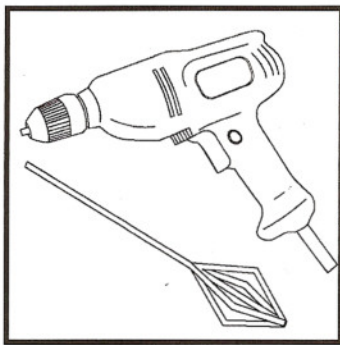
Do not use on frozen or over heated substrates (Outside the range of 0° - 30°C). Prepare the surface in advance to provide an adequate key. It should be clean, free from dust and thoroughly dampened. Where necessary steel or aluminium mesh can be used. Ensure that a 2 mm minimum thickness of material is obtained.

PRIMING.

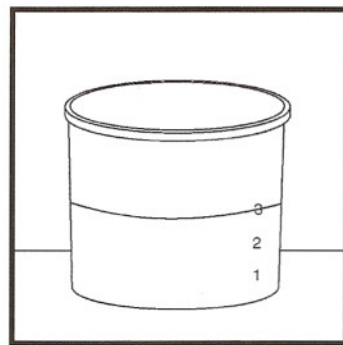
There is no need to prime any reinforcement, but if priming is preferred, any conventional system may be used.

MIXING

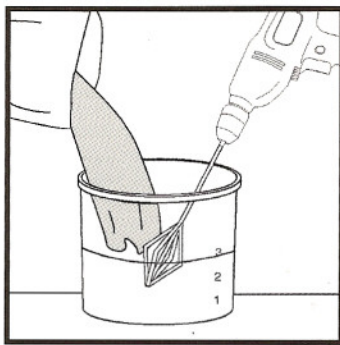
For optimum results mix using conventional mixing machines. Add the LUL RAPIDSET gradually to no more than 3.0 litres of clean water per bag, whilst mixing continuously. If one bag or less is to be used it can be mixed with a rose bud type paddle attached to an electric drill (900 rpm, 1000 W). Mix vigorously for at least 2 minutes after adding all the mixture to the water. LUL RAPIDSET is designed to give a fluid mix but this only develops after sufficient mixing. The mix will appear dry at first. Continue mixing until fluidity develops. If greater fluidity is required, more water up to a maximum of 3.25 litres may be used. Exceeding this ratio will lead to lower strength, longer setting time and the risk of surface cracking. In cold weather the set can be accelerated using warm water, likewise in hot weather cold water can be used to slow down the set.



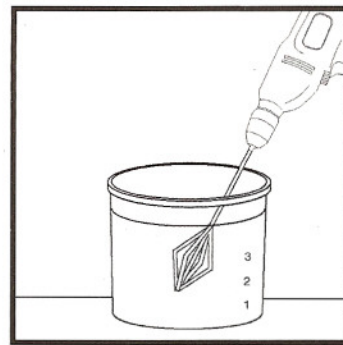
Rose bud paddle in electric drill 900-rpm 1000w.



Place 3.0 litres of water in a container.



Add the LUL RAPIDSET to water mixing all the time.



After the LUL RAPIDSET has been added mix for at least 2 minutes.

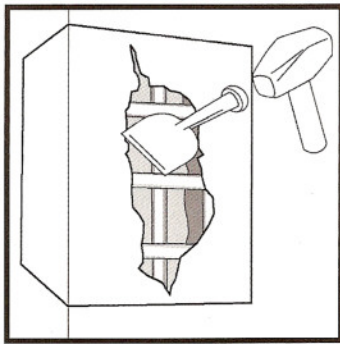
APPLICATION

GENERAL

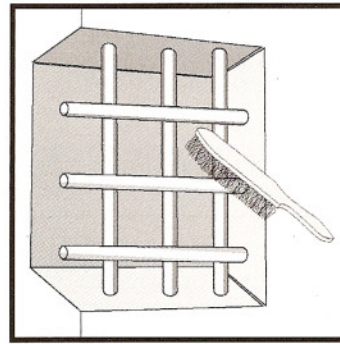
Place the material as quickly as possible after mixing using traditional tools. A 2 mm minimum thickness of the material is always necessary. Do not apply additional water to the surface during finishing as this may cause surface cracking. Once setting has started DO NOT attempt to re-mix or to smooth the surface, this will cause the mechanical properties in particular strength and adhesion to be lost.

CONCRETE REPAIRS

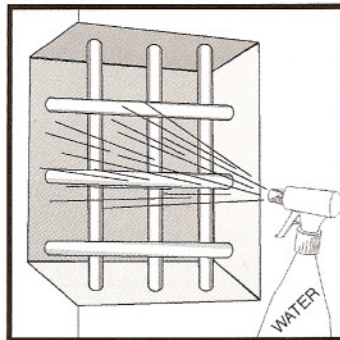
Carry out the removal of all loose material from concrete and the reinforcement. It is only necessary to remove the loose rust from the reinforcement. Prepare the surface as described previously ensuring that the surface is well dampened but ensuring there is no standing water. Fix any necessary replacement reinforcement, movement joints and formwork. Mix the material by adding the dry LUL RAPIDESET powder continuously to the water ensuring it is mixed for at least 2 minutes after adding the last of the LUL RAPIDESET powder and apply as previously recommended ensuring that the LUL RAPIDESET is worked around the reinforcement. Protect the surface of the LUL RAPIDESET from direct sunlight or wind until setting has completed. Once the LUL RAPIDESET has set allow at least 1 hour before applying any finishes.



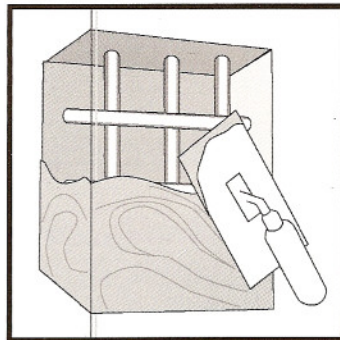
Cut back loose and spalling concrete a minimum depth of 2 mm.



Wire brush any reinforcement to remove any loose rust.



Well dampen the concrete with water ensuring no standing water.



Mix LUL RAPIDESET as instructed and place the mortar, ensuring at all times a minimum thickness of 2 mm.

SETTING TIMES

LUL RAPIDESET is designed to begin to set at 8 minutes and finish setting at 10 minutes at 20°C. In winter LUL RAPIDESET can be used down to 0°C. The set will be slower but can be accelerated by using warm water. In very hot temperatures the set will be faster and can be slowed by using cold water.

CLEANING

LUL RAPIDESET should be removed from tools and equipment with water immediately after use.

STORAGE

LUL RAPIDESET is packaged in a polythene inner bag with a re-sealable tie in a stitch sealed woven polypropylene outer bag that should be stored in dry conditions and will remain usable for at least six months.

YIELD

Generally 1 x 15 Kg bag of LUL RAPIDESET mixed with 3.0 litres of water will produce approximately 6 litres of finish mortar.

SETTING TIME & STRENGTH GAIN

Start Set	8 Min	at 20°C
End Set	10 Min	at 20°C
		Compressive Strength (Mpa)
At 1 Hour		4
At 3 Hours		5
At 24 Hours		9
At 7 Days		13
At 28 Days		32
<i>Strength continues to develop thereafter.</i>		

HOW TO SPECIFY

LUL RAPIDESET shall be mixed and applied to prepared surfaces all strictly in accordance with the manufactures instructions.

PRECAUTIONS

We strongly recommend the use of GLOVES GOGGLES and MASK. Please see MSDS sheet for full details.

MANUFACTURER & TECHNICAL SUPPORT



Part financed by the European Community
European Regional Development Fund
and managed by Yorkshire Enterprise

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