

THERMLITE- U(M)

Light-weight Microconcrete



ThermLITE- U(M) is ready to use light weight micro-concrete which requires the site addition of clean water to produce a free-flowing, light weight repair micro concrete. The material is based on Portland cements; special light weight aggregates of 2mm and additive.

Uses

ThermLITE- U(M) is used for repairs and applications where typical concrete weight would pose a problem and also used for jacketing, filling the gap and insulating the structures etc.

Benefits

- Light-weight- Reduce the dead load of structure
- More coverage than conventional micro-concrete
- Good fire resistance
- Provides good heat insulation properties
- Low permeability of cured repair
- Highly fluid to allow for placement without vibration
- Pre-packed to overcome site-batched variations

Technical Support

Thermax offers technical support package to specifies, end users and contractors as well as technical on-site assistance in locations all over the country.

Properties

Test	Typical Results
Compressive Strength (N/mm²) at 30°C (BS 1881:1983)	20-30 at 1 day
	30-40 at 3 days
	40-50 at 7 days
	50-60 at 28 days
Mix Density	1.82-1.98 gm/cc
W/P Ratio	0.16-0.17

Performance Specification

The following results were obtained at a water/powder ratio of 0.16-0.17 at 30°C.

The fluid light weight micro-concrete repair material shall be a single component, cement based micro-concrete to which only the site-addition of clean water is permitted.

The light weight micro-concrete in flowable consistency shall achieve a compressive strength not less than 40 N/mm² @ 7 days at 30°C. The mixed density of light weight microconcrete shall be between 1.82-1.98 gm/cc at 27°C.

Supplier Specification

All light weight micro-concreting (specify details and areas of application) must be carried out using ThermLITE- U(M) manufactured by Thermax, applied strictly in accordance with the manufacturer's technical datasheet.

Instructions for Use

Preparation

The formwork should include drainage outlets for presoaking and, if beneath a soffit, provision for air venting. Provision must also be made for suitable access points to pour or pump the mixed micro-concrete in place.

Several hours prior to placing, the concrete substrates should be saturated with clean water. Immediately prior to placing, any free water should be removed.

Mixing

Care should be taken to ensure that ThermLITE- U(M) is thoroughly mixed in a forced-action mixer of adequate capacity. Alternatively, mix in a suitably sized drum with a high torque (400/500 rpm) rotary drill fitted with a mixing paddle. It is essential that machine mixing capacity and labour availability is adequate to enable the placing operation to be carried out continuously. The quantity water required will generally be between 4.8 litres per 30 kg bag of ThermLITE- U(M). The optimum water content should be determined and accurately measured into the mixer. However it should not exceed 4.8 litres per 30 kg in any case. With the mixer running, slowly empty ThermLITE- U(M) bag into the mixer. Mix continuously for 5-8 minutes, ensuring a smooth even consistency of the mix.

Formwork

Slurry tight form work that will not deform or leak when subjected to hydraulic pressure imposed by the light weight micro concrete will be fabricated and erected where the material is gravity fed, provision in the formwork will be made for a suitable feed hopper at the highest point. Where necessary, provision will be made for air vents to prevent air entrapment. Form work will be coated with MAXCURE® MRA 101 mould releasing agent prior to fixing.

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Placing

The mixed material should be placed immediately. If placed by pump, standard concrete pumping practice should be followed. The pump and pipeline must be primed with cement slurry. Pumping should be commenced immediately after priming. If poured in the form work, avoid air entrapment by pouring from one side only.

Curing

As ThermLITE- U(M) is a cement-based repair material, it should be cured immediately after stripping the formwork in accordance with good concrete practice. In drying condition Polythene sheet must be used.

Health and Safety Instructions

ThermLITE- U(M) should not be swallowed or allowed to come into contact with skin and eyes. ThermLITE- U(M) is non-flammable.

Storage

Shelf Life

6 months if kept in a dry store in the original, unopened bags. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Packing

ThermLITE- U(M) is supplied in 30 kg moisture resistant bags.

Yield

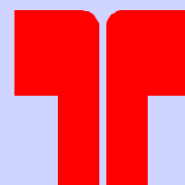
Yield is approximately 18.3 litres per 30 kg bag. Actual yield per bag will depend on the consistency of ThermLITE- U(M).

Other Segments:

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation
- Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives

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