

STONCLAD® UT-JRM

PRODUCT DESCRIPTION

Stonclad UT-JRM is a multi-purpose, solvent-free hybrid polyurethane joint repair mortar, pre-packaged into 5 components. The kit is mechanically mixed together and poured into prepared cavities, levelled with a steel trowel and sets in 4 hours.

USES

Stonclad UT-JRM is designed for repairing broken edges of concrete joints and is also suitable for the patching of industrial floors exposed to conditions of impact, abrasion and high traffic. The product renders the repaired surface level, non-slip and waterproof, making it ideal for wet or dry areas in the food, beverage, pharmaceutical and chemical industries. The rapid set allows for quick return to service, which is demanded in many warehouse, storage and process facilities.

PACKAGING AND COVERAGE

Primer: No primer required

Stonclad UT-JRM: 16lt kit consists of:

Stonclad UT 950 Parts A, B & C: 4.45kg Resin + 20kg Aggregate

Stonclad UT 950C Colour Pack: 0.90kg Coloured Powder

Pro-Struct 53-MC: 12.5kg 6mm Stone

8 Linear metres at 30mm deep x 60mm wide / 16 litre kit

EQUIPMENT REQUIRED:

- 2 x 25lt Mixing buckets
- High torque 600 rpm mixer
- 150mm Spiral impeller
- Clock with second hand
- Joint cutting equipment
- Straight edge and steel trowel

REFERENCE SAMPLE

A trial reference sample should be installed by the applicator prior to start of contract to ensure correct coverages and workmanship.

STORAGE CONDITIONS

Store all components of Stonclad UT-JRM between 16 to 32°C in a dry area. Avoid excessive heat and do not freeze.

SHELF LIFE

The shelf life is 1 year for the base and activator and 6 months for the part C in their original, unopened containers.

TYPICAL PROPERTIES AT 25°C

Colour	Refer to Stonhard colour card
Compressive Strength ASTM C-579	53.2 MPa
Tensile Strength ASTM C-307	6.9 MPa
Flexural Strength ASTM C-580	16.6 MPa
Flexural Modulus of Elasticity ASTM C-580	1.8 x 10 ⁴ MPa
Hardness ASTM D-2240, Shore D	80 to 84
Bond Strength ASTM D-4541	>2.7 MPa (100% Concrete failure)
Impact Resistance ASTM D-2794	18 Joules
Abrasion Resistance ASTM D-4060, CS-17 Wheel	0.05mg max weight loss
Coefficient of Friction ASTM D-2047	Dependent on texture selection
Flammability ASTM E-648	Class 1
Thermal Coefficient of Linear Expansion ASTM C-531	1.1 x 10 ⁻⁵ mm/mm°C
Water Absorption ASTM C-413	<1%
Heat Resistance Limitation	Continuous 93°C Intermittent 121°C
Cure Rate at 25°C	12 Hours for foot traffic 24 Hours for light traffic 7 Days chemical exposure
VOC Content	7g/l Mortar

NOTE: The above physical properties were measure in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory, values obtained on the field applied materials may vary.

PLACEMENT GUIDELINES

SCOPE OF WORK (BOQ):

Prepare surfaces and apply Stonclad UT-JRM Joint Repair Mortar to full depth, re-cutting and sealing joints within 12 hours of placement.

SUBSTRATE PREPARATION:

All surfaces in contact with Stonclad UT-JRM shall be dry, free of oil, grease and contaminants. Saw-cut concrete within the outlines of the repair, cutting 30mm deep perpendicular to the surface to avoid feather edges. Cut 60mm on either side of the joint.

Remove all concrete within the perimeter to a depth of 30mm or beyond until a well bonded main aggregate in the substrate is reached. Sweep clean and vacuum to remove dust and loose particles.

Demarcate either side of the joint so that it can be recut once the repair has set. If only one side is to be repaired, a formed "Jointex" tape is used.

MIXING:

Empty the entire contents of Stonclad UT Parts A & B into a 25 litre drum. Using a high torque 600 rpm mechanical mixer fitted with a large mortar spiral impeller, blend A & B for 60 seconds. Whilst stirring, add Part C-2 Pigment Pack and the 20kg bag of Part C into the drum and mix for a further 60 seconds.

Whilst still mixing, add the 12.5kg Pro-Struct 53MC Stone to the drum and mix for a further 30 seconds, ensuring all aggregates are thoroughly wetted. Immediately send the mixed material to the application area and start mixing the next kit in another drum if extent of repair requires it.

PLACEMENT:

Whenever possible, place Stonclad UT-JRM to full depth from one side of the repair to the other, and up to the preformed foam shutter previously placed in the joint.

Placement must be no longer than 750mm longitudinally along the length of the joint.

The repair mortar is levelled and compacted with a straight edge and steel trowel to smooth the surface level with the existing floor. The trowel can be wiped clean with Carboline Thinner # 10 during the surface smoothing process. This will assist in popping the entrapped bubbles. Do not re-trowel the material 20 minutes after application.

CURING:

Allow to cure between 4 to 12 hours at 25°C before recutting the joints and sealing with StonCor Africa specified sealer. The repair can be exposed to light foot traffic after 12 hours and vehicle traffic after 24 hours.

NOTE:

Due to the natural behaviour in the curing process, Stonclad UT-JRM can show slight aesthetic defects like minor pinholes in the surface. These defects do not harm the chemical, mechanical or thermal properties of this industrial repair, and can be ground out with cup grinders level with existing floor. This method of mechanical grinding is also recommended as to remove the resin rich surface.