RESTOR 23

Description: Restor 23 is a three component, pourable epoxy resin system for use as a structural grout. The resin is of a light golden colour which is mixed in the ratio of 100 parts by weight (p.b.w) with 20 p.b.w. of the hardener - an almost colourless liquid- to provide a base for the addition of the filler component which consists of graded silaceous aggregates. The system is either cold or warm setting to give a structurally discrete back-fill, principally for timber repairs.

Characteristics: Restor 23 mixes are, by reason of site control over filler concentration, capable of being used to provide a pourable grout or back-fill for a wide range of temperatures. The cured product creeps sufficiently under loading to accommodate movement in complex timber joints.

Uses: Restor 23 structural grout is a versatile product for site repairs to rotten, insect or fire damaged timbers to re-make joints, breaks or shakes: the system is recommended for use with Restor 24 epoxy glass rods where their strength, corrosion resistance and compatability with the epoxy grout makes them superior to mild or stainless steel reinforcement.

Product	Appearance	Density at 25 C
Restor 23 Resin	Clear, pale golden colour appearance	1.14mg/mm³
Restor 23 Hardener	Clear, colourless liquid	1.01mg/mm³

INSTRUCTIONS FOR USE:

Pretreatment. Contaminated surfaces can inhibit both subsequent bonding and appearance. Remove any loose surface deposits or rotten timber: visible surfaces may be left natural or cut off to leave a clean interface between timber and synthetic repair. Prop where necessary. Shutter the repair area using melamine faced chip board e.g. contiboard: render the pre-waxed shuttered box leakproof with the aid of one component silicone sealant and allow this to cure.

Where the pour is to be into masonry, make a good seal by utilising a compatible product e.g. Restor 22 epoxy wood, which may be used as putty. Lay Restor 24 rods across any gap between either rotten timber or from timber to masonry, always ensuring that the rods are seated into good timber.

Product	Parts by weight
Restor 23 Resin	100
Restor 23 Hardener	20

Mixing: Pour resin and hardener into the pail supplied and mix thoroughly with a palette knife or similar until a clear, non-striated mix is achieved. Add filler slowly until a pourable viscosity is reached.

Usable Life: The following times hold good for 20C In bulk an 8kg mix is usable foi about 30 minutes. Breaking down to smaller quantities of mix will help extend the life to about 45 minutes. The usable life at higher temperatures will be shortened.

Application: To avoid excessive build-up of exothermic heat, the mixed system is poured to a depth of 50mm when working at 20C - less at higher temperatures. Allow the system to gel before continuing in 50mm layers until completion of the fill. Strike shuttering after 12 hours at 20C

Curing: After 3 days at 20C any propping may be removed: any loading may now be imposed.

Working Temperature: The usable life and other published times hold good for R.T. (20C). They will be shortened by higher temperatures.

Storage: The separate components, stored at 5C to 25C in dry conditions have a shell life of 2 years.

Cleaning Equipment: Clean before the mixture has hardened. PHYSICAL PROPERTIES

Usable Life of 5kg	at 20C at 5C	30 mins 90 mins
Gel Time	at 20C	8 hours
	at 5C	36 hours
Specific Gravity	at 20C	1.8

Mechanical properties after curing 21 days at 20C Test Temperature 20C

Tensile Strength 1SO/R.527	MPa	19.7
Tensile Modulus 1SO/R. 527	GPa	6.6
Elongation at break ISO/R. 527	%	0.7
Flexural Strength* ISO 178	MPa	35.7
Flexural Modulus ISO 178	GPa	7.7
Compressive Strength* Iso 604	Mpa	65.9
Coefficient of expansion ASTM D696	Linear/C	44.2x10-16

* Tested to BS 6319. Systems are anticipated to give values 10 to 15% higher than the quoted figures.

Caution: Restor 23 Resin and Hardener are generally harmless providing that the normal common sense precautions taken when handling chemicals are observed. For instance, neither the separate components nor the uncured mixture should be allowed to come into contact with foodstuffs or utensils. Measures should also be taken to prevent contact with the skin: wearing rubber or plastic gloves will normally suffice along with eye protection. Thoroughly cleanse the skin at the end of each working period by washing with soap and water. Disposable paper towels are recommended to dry the skin.

The information given in this data sheet is given in good faith and is based upon knowledge and experience of the materials used. However, since the application of the product is beyond the control of Restoration UK Ltd. We cannot accept any responsibility for any loss or damage resulting from the use of the product outside the scope of the intended use and precautions set out in the data sheet.

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