

RAP ADHESIVE

TDS13 Rev7 17/02/20

Ceiling Reinstatement

DESCRIPTION

A pure acrylic adhesive.

USES

Used for wood lath ceiling reinstatement, re-establishment of adhesion for drummy plaster and render by injection. RAP Adhesive is also used as a primer under Multifinish.

TECHNICAL DATA

Colour White liquid

Adhesion Excellent to all surfaces.

pH 8.5 ± 1

PREPARATION

Used following the application of the RAP Primer in the Westox Ceiling Reinstatement System.

Do not thin out material.

APPLICATION

Ceiling Reinstatement

Apply a flood coat at 1m² per Litre with a mechanical or hand pump.

Primer

When used as a primer for Plastalite Multifinish allow approximately 5m² per Litre.

Apply with brush or roller.

CLEAN UP

Wash all equipment in fresh water immediately after use.

PACKAGING

5 Litre & 20 Litre.

SHELF LIFE

12 months.

SAFETY

Refer to Westlegate Pty Ltd Safety Data Sheet (SDS) for instructions.



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Spalling Concrete Repair

DESCRIPTION

The RAP Adhesive has been formulated to restore the alkaline properties of spalled concrete areas and to protect reinforcing against further corrosion.

FEATURES

- ✓ Water resistance
- ✓ Long term stability
- ✓ Non toxic
- ✓ High bond strength
- ✓ Easy to use
- ✓ Waterbased

PERFORMANCE DATA

Bond Strength	1.32MPa	Impact Strength	1.80MPa
Tensile Strength	4.24MPa	Compressive Strength	39.40MPa
Flexural Strength	10.90MPa	Shear Bond Strength	4.48MPa

Based on specific standard specification mix.

STANDARD SPECIFICATION FOR THE TREATMENT OF SPALLING CONCRETE

PREPARATION

Remove loose concrete from around areas of rusting reinforcing steel and chase rusted bars into sound concrete until rust ceases. Chase at least 20mm behind the steel. Wire brush steel or mechanically abrade to remove all loose and all flaking rust and expose bright steel. Treat steel with a mixture of Westox CR25 mixed with cement to a slurry consistency and apply by brush directly onto exposed steel. Ensure that the rear of the steel is fully encapsulated with this mixture. Allow to dry for a minimum of eight (8) hours.

PATCHING

Mix one (1) part RAP Adhesive, to three (3) parts water, use this mixture as gauging water for a three (3) sand and one (1) cement mix, add only enough gauging water mixture to obtain a workable consistency and use to patch or repair around exposed steel. Build up patches in layers not exceeding 15mm per coat, allowing at least four (4) hours between layers. Finish flush to original texture, all repairs are to cure for a period of seven (7) days prior to application of coating.

PRIMER

Prime all new rendered surfaces with Westox WB30 Epoxy Primer at the coverage rate of 5m² per Litre. Allow to dry for a minimum of 24 hours before applying top coats. If in a salt air environment wash down primer with clean water and dry prior to applying top coat.

Prime all previously painted surfaces with one (1) coat of High Block C Primer at the coverage rate of 8 – 10m² per Litre and allow to dry for a minimum of one (1) hour before applying top coats. If in a salt air environment all primed surfaces must be top coated the same day.

COATING

Suitable coatings from the Westox range include:-

Glosstex	1 coat @ 1 – 1.5m ² per Litre.
Satintex	1 coat @ 1 – 1.5m ² per Litre.
WBA Membrane	2 coats @ 4m ² per Litre per coat.
Westox Wesflex	2 coats @ 5 - 6m ² per Litre per coat.

CLEAN UP

Wash all equipment with fresh water immediately after use and before product has set.

PACKAGING

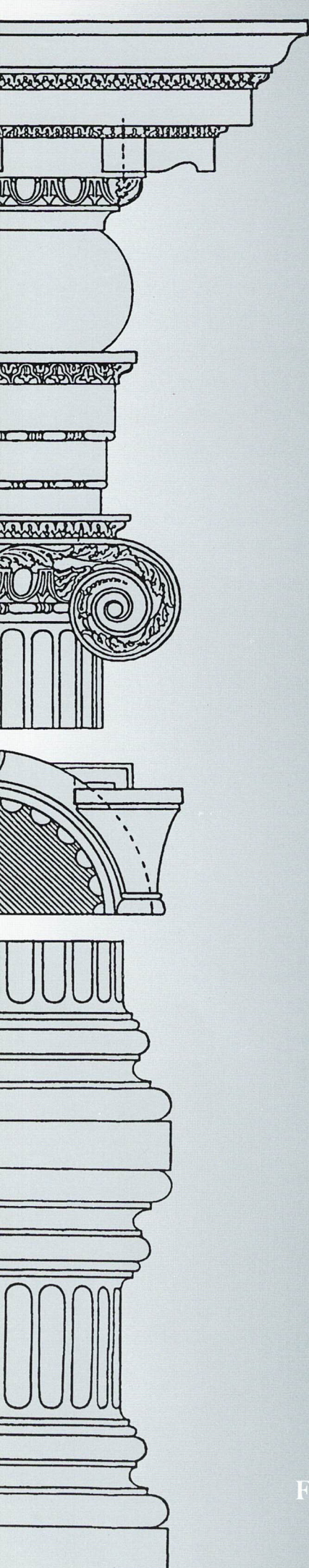
5 Litre & 20 Litre.

SHELF LIFE

12 months.

SAFETY

Refer to Westgate Pty Ltd Safety Data Sheet (SDS) for instructions.



WESTOX

*Ceiling
Reinstatement
System*

FOR THE RESTORATION OF PLASTER AND LATH CEILINGS.

Technology For Restoration



Ornamental lath and plaster ceiling requiring reinstatement

The restorer of historic buildings frequently encounters the problem of plaster which has become detached from walls and ceilings. In cases where the plaster is painted with important decorations or murals, or is valuable in itself as early architectural material, its preservation is often an urgent requirement. Plaster in historical buildings is most frequently attached to wood laths, but often the spaces between the laths were not made large enough to permit the forming of an adequate mechanical key between lath and plaster. The narrow keys of plaster formed between the laths prove too weak to support the weight of plaster, and break off. Sometimes the laths are nailed directly to planks, so that there is no room at all for keys of plaster to curl around behind the laths.



Thorough cleaning is essential

The condition of the laths may also be effected by fungal or insect attack and the presence of moisture can cause the nails fixing the laths to the joists to rust. Building movement and sagging of the roof timbers may also result in cracks appearing.

Various approaches have been used in re-attaching loose plaster to such substrates. In cases where the plaster keys between the laths have broken a common technique is to re-establish a key by placing over the back of the lath (where this is accessible) a new layer of plaster which is bonded to the broken stubs of the keys. Such a layer of plaster may be reinforced with cloth or wire mesh, or modified with adhesives so as to bond to the broken stubs of the keys.

There are several problems that may occur with some of the common techniques of re-attachment. Where new, reinforcing plaster is applied to the reverse side of ceiling laths, the added weight may be a consideration. Furthermore, the old plaster may continue to be subject to breakage of the keys just below the bond line of the new "backing plaster". Continuing breakage of keys would be particularly likely to occur if the original plaster is heavy or weak, or if there is insufficient space between the laths to allow the formation of keys of adequate width. Some materials used in typical adhesive formulations for plaster may not be resistant to hydrolysis, oxidative deterioration, or microbiological attack:

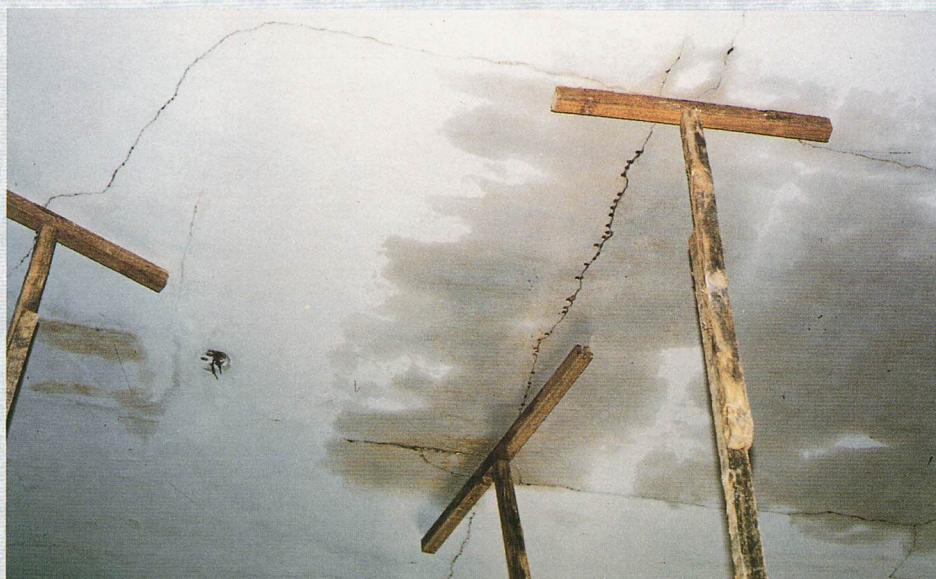


Application

The approach described in this brochure, has been used since 1976. It consists of injecting specially formulated acrylic-resin based adhesives into the space between the lath and plaster, through holes drilled either through the plaster or, where the reverse side is accessible, by saturating the substrate.

In providing a continuous bond between substrate and plaster, the method works equally well regardless of the availability of space for a mechanical key. It also distributes the load imposed by a heavy ceiling over the maximum area of the reverse side of the plaster, thus reducing the tensile stress on any one portion of the plaster. This system also offers the flexibility needed to absorb the differential expansion and contraction movements of lath, plaster and adhesive. Three formulations are used to reinstate the key. Westox R.A.P. Primer, this prewetting solution penetrates into the plaster and consolidates any dust or weak plaster that

may be present. Westox R.A.P. Adhesive is then applied. Where large voids exist R.A.P. thickened Adhesive may be injected. Full cure takes 7 days and temporary props need to be left in place for this period.



Penetration of adhesive and main propping areas



Adhesives by spray



Completed ceiling

Technical Specification

Product Data

The materials used are water based acrylics and consist of three products.

R.A.P. Primer

R.A.P. Adhesive

R.A.P. Thickened Adhesive

Package Size

20 Litre Pails

25 Litre Pails

Standard Specification

It is necessary before commencement of work that all floors are covered with waterproof drop sheets taped at the joints. Walls and skirtings, may also require protection.

The ceilings are to be supported by wooden props and braces. It is recommended that the props are cushioned at floor level to assure that the flooring is not damaged.

System A

If access can be obtained from above i.e. roof void or by removal of floorboards the following procedure is to be followed.

A-1

Remove all dust, loose plaster and other material from the lath work using an industrial vacuum cleaner.

A-2

Prime the ceiling from above so that all plaster and lath is coated., using Westox RAP Primer at the approximate coverage of 0.75 litre to 1 m². This may be achieved by use of a mechanical or hand pump spray unit.

A-3

Apply Westox R.A.P. Adhesive, using the same application method and coverage.

A-4

Should cracks be excessive the application of R.A.P. thickened Adhesive is recommended. This may be applied from above using a spatula or by drilling from below and injecting as outlined in method B.

A-5

After 7 days the props may be removed and the ceilings made good, filling cracks and where necessary replastering fallen sections.

System B

Where access from above is not possible an injection system is used. The preparation and protection of floors and walls are as System A. During propping assure that the cracked areas are left accessible.

B-1

Drill through the plaster with a 10 mm drill bit and insert the tapered nozzle of the injection gun into the hole. Pump the R.A.P. Primer in at approximately 0.5 litres per hole thoroughly saturating the plaster and lath above. Continue in this fashion forming a grid of holes at 300 mm centres.

B2

After completion of priming, repeat the treatment using Westox R.A.P. Adhesive, at the same coverage rate.

System B-3

Where cracks are excessive use Westox R.A.P. Thickened Adhesive injected into holes drilled directly into the cracks every 150m. It may be necessary to make good to the crack prior to proceeding with drilling to prevent leakage.

System B-4

Remove props after 7 days and make good to ceiling.

APPROVED APPLICATOR:-

Manufactured under a quality system certified as complying with ISO 9002 by an accredited certification body



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