



## Timber Preservation and Repair



This brochure contains information about Triton's products for timber preservation and repair. However some systems are also suitable for the treatment of masonry.

The Tribor ready to use systems are designed to treat insect and fungal attack in timber including dry rot, mosses, lichen, fungi and algae. They are particularly suited to damp "at risk" timbers such as embedded joist ends, lintels, wall plates, rafters and panelling.

Tritec wood preservatives are third generation bicontinuous microemulsion concentrates, cleared under the Control of Pesticides Regulations for professional use and granted 1-hour re-entry clearance.

Triton's epoxy systems for structural and non-structural repair include structural grouts for repairing voids or bearing ends, non-structural mortars for filling voids, adhesives for bonding structural fixings, timber consolidants and waterproof coatings for walls and floors, above and below ground.



NBSPlus

For more information about specifying products in this brochure via the RIBA NBS Service, please see page 7.

# Dual Purpose Systems:

These pages contain a brief outline of Triton's products designed for the long term treatment of timbers which have been affected by both fungicidal and insect attack. Untreated timbers can be affected by woodworm and, if damp, can also be affected by wet and dry rots. Triton's Tribor range, Tripaste and Tritec Plus have been especially formulated for their control and prevention.

## TRIBOR PLUS

A unique dual purpose gel which combines Boron with the insecticidal properties of Permethrin to control and prevent attack by wood rotting fungi and wood destroying insects. Its deep penetration properties mean that damp timbers, where death watch beetle is often present, can be successfully treated – even if the moisture content is considered too high for the use of conventional timber paste. The Permethrin boosts the performance of the treatment when control of emergence from heavily insect infested timber is required. Provided treated surfaces are protected until dry, there is no stipulated re-entry time.

### Properties

- broad spectrum of fungicidal and insecticidal activity
- can be used on very damp timbers
- gel consistency eliminates dripping and wastage
- hydrocarbon solvent free
- low odour, non flammable
- can be overpainted when dry
- no re-entry time

### Composition

A 20% w/w solution of Disodium Octaborate and 0.4% w/w Permethrin dissolved/emulsified in Monoethylene Glycol and water.

### Application/Coverage

Surface: Tribor Plus should be applied evenly by brush or trowel at a rate of approximately 5M<sup>2</sup>/Litre.

Injection: Tribor Plus can be injected into timbers via pre-drilled 10 – 12mm holes, 100mm apart to 2/3 depth of the timber.

### Availability

Direct from Triton in 5 litre packs.

## TRIBOR 10

A ready to use dual purpose formulation for use as a wood preservative against wood rotting fungi and insect attack. When used in conjunction with Tribor 20 and Tribor Gel, a complete dry rot treatment, eradivative and preventative, can be achieved.

### Properties

- Deep penetration into wet or dry timber
- Broad spectrum of fungicidal and insecticidal activity
- Very low mammalian toxicity
- Practically odourless
- Non-flammable
- Low volatility

### Composition

A 10% w/w solution of Disodium Octaborate Tetrahydrate and 2% Benzalkonium Chloride dissolved in water and Monoethylene Glycol.

### Application/Coverage

All timbers to be sprayed should be clean and absorbent. In some circumstances it may be necessary to apply two coats to achieve the desired application rate. Avoid treating sealed, stained or varnished/painted surfaces.

By brush: 1 litre/6-8 m<sup>2</sup>

By coarse spray: 1 litre/4-5m<sup>2</sup>

### Availability

Direct from Triton in 5 and 25 litre containers.



## TRIBOR 20

Tribor 20 is a highly effective Boron wood preservative designed to be surface applied or injected into timbers at risk or under attack from fungal decay or insects. Water soluble Tribor 20 is particularly suitable for the treatment of damp timbers such as embedded joist ends, lintels and wall plates, as well as rafters, joists, plywood and soft or hardwood panels.

### Properties

- Deep penetration into timber, wet or dry
- Broad spectrum of fungicidal and insecticidal activity
- Very low mammalian toxicity
- Practically odourless
- Non flammable, non staining

### Composition

Tribor 20 is a 20% w/w solution of Disodium Octaborate Tetrahydrate dissolved in Monoethylene Glycol, Monopropylene Glycol and water.

### Application

Tribor 20 can be surface applied by brush or dipping, injected into pre-drilled holes or microsprayed into inaccessible voids or under timber suspended floors.

### Availability

Direct from Triton in 5 and 25 litre packs.



## TRIPASTE

A bodied, 'mayonnaise' type solvent based wood preservative paste, for the eradication of wood boring insects and for the control of wood destroying fungi. Ready to use Tripaste is suitable for the treatment of timber which is difficult to penetrate by conventional spraying.

### Properties

- Deeply penetrating
- Long term protection against fungal and insect attack

### Composition

Tripaste contains Permethrin (0.12% w/w) insecticide and Tri-hexylene Glycol Baborate (3.3% w/w) fungicide.

### Application/Coverage

Following removal of all heavily infested and structurally unsound timber, Tripaste should be applied using a palette knife, brush or trowel to provide a continuous layer of approximately 1mm thick. Alternatively apply in 'ribbons' using a mastic gun to give an equivalent overall loading. End grain surfaces should be treated with a layer of 6-7mm over the whole surface. Appropriate protective clothing should be worn.

### Availability

Direct from Triton in 10 litre plastic buckets.

## TRITEC 120/121 PLUS

Tritec 120 Plus and 121 Plus are both formulated for the in-situ treatment of timbers which are affected by wood boring insects as well as containing a fungicide for the control of wood destroying fungi. After dilution, Tritec 120 Plus has a Permethrin content of 0.1%, whilst Tritec 121 Plus offers a 'traditional' Permethrin content after dilution of 0.2%.

### Properties

- One hour re-entry
- Effective against all wood boring beetles and all wood destroying fungi
- Non hazardous
- Non flammable, very low odour
- Excellent penetration into timber
- Concentrates and dilutions are truly water based
- Safe for use in bat inhabited areas

### Composition

A third generation bicontinuous microemulsion wood preservative concentrate.

### Application/Coverage

Where timber is infected with wood rotting fungi, cut away all structurally unsound wood and in the case of dry rot, remove all wood 600mm beyond the visible extent of fungal growth. Remove or isolate all timber in direct contact with damp masonry. If this is not possible, consider the use of Tribor 20 and Tribor Gel.

Tritec 120/121 can be applied by brush or coarse, low pressure spray at a rate of approximately 1 litre of diluted product per 3-4 M<sup>2</sup> of wood surface area. Appropriate protective clothing should be worn.

### Availability

Direct from Triton in 1 and 25 litre containers.



# Insecticidal Systems:

These products are specifically formulated to tackle insect attack in timbers. If insect attack is left untreated, then the structural integrity of the timber can be lost. Tritec and Trimethrin products are suitable for the treatment of timbers affected by an identified active attack.

## TRITEC 120/121

Tritec 120/121 are both formulated for the in-situ treatment of timbers which are affected by wood boring insects. After dilution, Tritec 120 has a Permethrin content of 0.1%, whilst Tritec offers a 'traditional' Permethrin content after dilution of 0.2%.

### Properties:

- One hour re-entry
- Excellent penetration into timber
- Non flammable, very low odour
- Effective against all wood boring beetles
- Non hazardous
- Safe for use in bat inhabited areas

### Composition

A third generation bicontinuous microemulsion wood preservative concentrate.

### Application/Coverage

Tritec 120/121 can be applied by brush or coarse, low pressure spray at a rate of approximately 1 litre of diluted product per 3-4 M<sup>2</sup> of wood surface area. Appropriate protective clothing should be worn.

### Availability

Direct from Triton in 500ml and 25 litre containers.

## TRIMETHRIN OS

Trimethrin OS is an organic solvent wood preservative for the eradication of wood boring insects.

### Properties

- Safe to use solvent based wood preservative
- Safe for use in bat inhabited areas

### Composition

Trimethrin OS contains 0.2% w/w (1.6 grams per litre) of Permethrin dissolved in a low odour hydrocarbon solvent boiling between 195 and 260°C. The calculated LD50 value of Trimethrin OS is greater than 10,000 mg/kg – a much safer level of toxicity compared with Lindane or Dieldrin based preservatives.

### Application/Coverage

Trimethrin OS should be applied using a low pressure spray at a rate of 1 litre/4M<sup>2</sup>. Suitable protective clothing should be worn. After treatment, the area should be left well ventilated.

### Availability

Direct from Triton in 5, 25 and 200 litre containers.



# Fungicidal Systems:

Timbers which have been allowed to become damp are prone to attack by both wet and dry rots. Triton has developed products to tackle both. They can also be used as masonry sterilisants when treating dry rot outbreaks. Dry rot requires a source of moisture, which should be eliminated prior to application of Tribor Gel or Trisol 23.

## TRIBOR GEL

Tribor Gel is an inorganic Boron wood preservative for the control and prevention of attack by wood rotting fungi. Supplied in easy to use cartridges for injection into “at risk” timbers such as embedded joist ends, but suitable for virtually any timber component. Tribor Gel is designed to be used in conjunction with Tribor 20.

### Properties

- Easy to use mastic cartridge
- Penetrates deeply into damp or wet timber
- Not lost by evaporation, stays within the wood
- Virtually odourless, no hazard classification
- Effective against both dry and wet rots

### Composition

Ready to use Glycol-borate formulation.

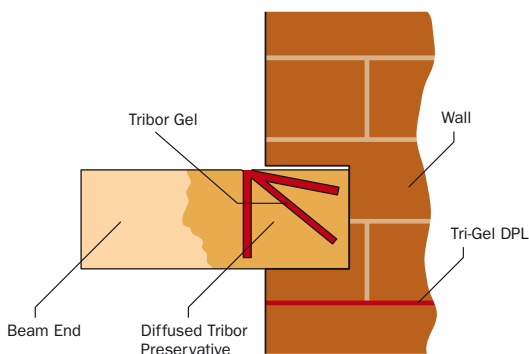
### Application

Tribor Gel should be injected into 8mm or larger pre-drilled holes, drilled into the timber just short of full depth at no more than 100mm centres. Holes should be drilled from above or at a downwards angle and capped after filling.

### Availability

Direct from Triton in 400ml cartridges.

JOIST/BEAM END TREATMENT USING TRIBOR GEL



## TRISOL 23

A concentrated product formulated for the sterilisation of masonry infected with dry rot fungus. Also used for the control of mosses, lichens and algae on external surfaces. When mixed with water, forms a stable microemulsion.

### Properties

- Broad spectrum of activity
- Low odour, non corrosive
- Contains no petroleum solvents

### Composition

A third generation bicontinuous microemulsion concentrate which contains 3-Iodo-2-Propynyl-N-Butyl Carbamate as the active ingredient (I.P.B.C).

### Application/Coverage

Following removal of all surface fungal growth and strands, mortar joints should be raked out to a minimum depth of 10mm. Plaster should be stripped off to one metre beyond any visible signs of infection. All built-in and decayed timber should be removed if possible or treated with Tribor 20 and Tribor Gel. Sterilise all exposed areas with three coats of Trisol 23 using a low pressure spray. Brush application is suitable for small areas. In severe cases or where isolation is required, traditional irrigation to form a ‘cordon sanitaire’ or toxic box may be carried out – see section on Tribor 10.

Trisol 23 should be diluted with water 1+24 (1 litre makes 25 litres) and applied with a coarse low pressure spray at a rate of 1 litre/1-2 M<sup>2</sup>.

### Availability

Direct from Triton in 1 and 25 litre containers.



# Timber Repair Systems:

This section contains brief information about the Timber Repair Systems available from Triton. More detailed information about methods of Timber Repair can be found in Triton's 'Timber Repair Manual' which includes information about Beam End Repairs, Upgrading of Existing Timber, Stitch Pinning Dowel System, Fitch System, Timber Joist Repairs, Consolidation Repairs and Consolidation of Large Voids. This manual can be downloaded from the Product Literature section on Triton's website at [www.triton-chemicals.com](http://www.triton-chemicals.com) or is available by email, on CD or in hard copy format direct from Triton – please call 020 8310 3929 to request your copy.

## TRIMOL 34

Trimol 34 is a two-component, epoxy resin system which creates an almost colourless liquid to provide a cold or warm setting consolidant for wood. It will consolidate friable, worm infested or tack-damaged furniture and provide a base upon which to carry out further restoration. Trimol 34 may be used in conjunction with Trimol 54 to re-make surfaces and even intricate profiles.

## TRIMOL 35

Trimol 35 is a three-component, epoxy resin system for use as an injectable filler for fissures in concrete or wood. The product will gel in around 4 hours and attain the majority of its ultimate mechanical strength within 3 days.

## TRIMOL 36

Trimol 36 is a three-component, pourable epoxy resin system for use as a structural grout. Typical applications include site repairs to rotten, insect or fire damaged timbers to re-make joints, breaks or shakes. The system is recommended for use with Trimol 50 epoxy glass pultruded rods. To avoid build up of exothermic heat, mixed Trimol 36 should be poured in 50mm layers and allowed to gel.



Beam strengthened with cured Trimol 36

## TRIMOL 23

A 2-component solvent-free adhesive, Trimol 23 can be applied in cold, damp conditions and will remain in place on vertical or inverted surfaces. Forms a strong bond to wood, metals, glass reinforced plastics and laminates. Compatible with Trimol 36 for timber repair applications.



## TRIMOL 50

Manufactured from glass reinforced resin by "pultrusion", Trimol 50 rods are lighter than steel but have comparable tensile strength. They are compatible with Trimol 36 structural grout and supplied in a range of sizes from 3-25mm diameter.



## TRIMOL 54

Trimol 54 is a two-component system which, when mixed, provides a cold setting wood-like material. The cured product can be planed, chiselled, carved and drilled. The uncured product can be grained to match existing timber for facing off beam repairs and used for filling, in conjunction with Trimol 34, tack damaged, rotten or worm infested furniture or similar items.

## NBS PLUS

Triton is a member of the RIBA Manufacturers' Network and therefore all products on pages 2-5 in this brochure can be specified via NBS Plus. Links to the relevant specification clauses below can be found on Triton's website at [www.triton-chemicals.com](http://www.triton-chemicals.com) where further technical and safety information about each product is also listed.

**Product:**

Tribor Plus, Tribor 10, Tribor 20, Tripaste, Tritec 120/121 Plus, Tritec 120/121, Trimethrin 05, Tribor Gel

**Relevant NBS Specifications:**

C52 Fungus/Beetle Eradication 323 Timber Preservative Treatment  
 C52 Fungus/Beetle Eradication 47 Timber Preservative Treatment

**Product:**

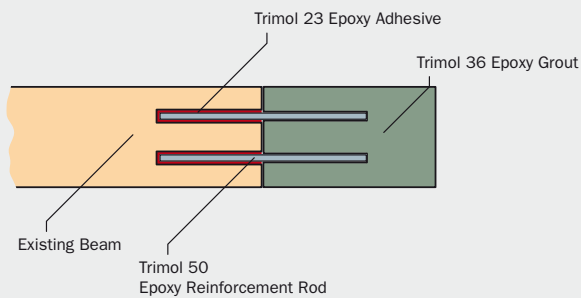
Trisol 23

**Relevant NBS Specifications:**

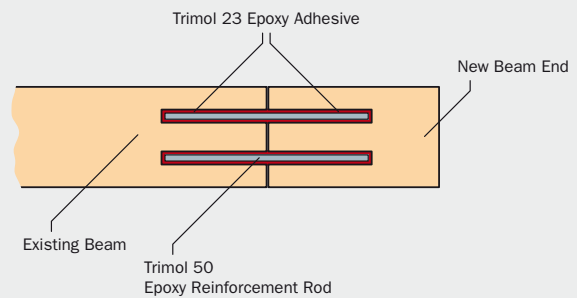
C52 Fungus/Beetle Eradication 62 Masonry Fungicide Treatment  
 C52 Fungus/Beetle Eradication 343 Masonry Fungicide Treatment



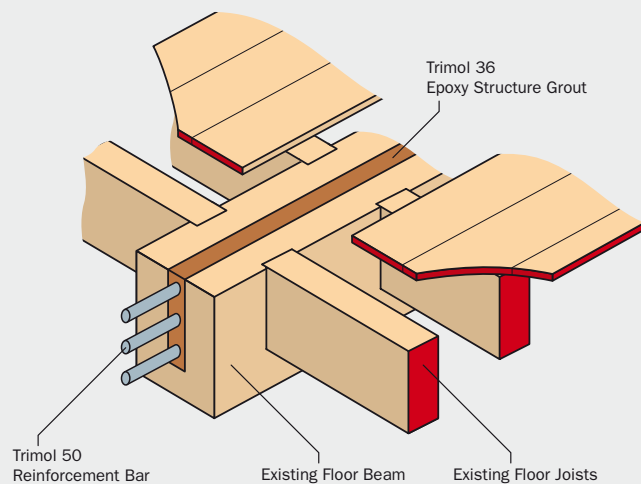
BEAM END REPAIR 1



BEAM END REPAIR 2



TRITON FLITCH SYSTEM





**Also available from Triton:**

Damp Proofing and Replastering Systems

Protective Coatings

Structural Waterproofing Systems

Green Roof/Living Roof Systems

Condensation Control

Structural Repair



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