



Intelligent Wood Systems

Treated Timber - Consumer Information

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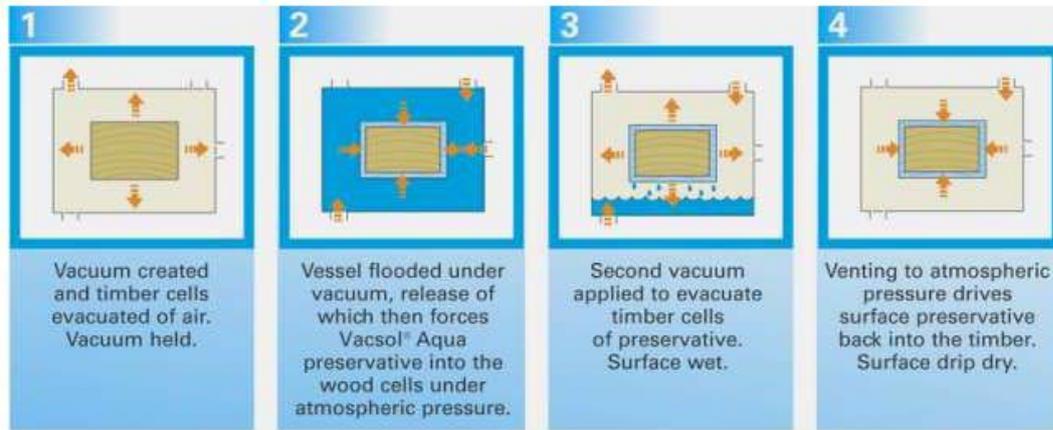


IWS-Preservative Treated Timber

Main Features

IWS-Preservative treated timber has been impregnated with Vacsol Aqua 6112 under controlled conditions in a double vacuum/low pressure impregnation plant.

The Treatment Process



IWS-Preservative treated timber is protected against fungal decay (rot) and insect attack to ensure an extended service life to the timber/timber components.

Vacsol Aqua 6112 is registered and cleared for use under the UK Control of Pesticides Regulations. It is a water based product containing ultimately biodegradable organic biocides and do not contain lindane or metal based biocides.

Typical uses for **IWS-Preservative** treated timber include building timbers above damp proof course and, where relevant, above the termite shield - timber frame and truss material, flooring, cladding, interior and exterior joinery and plywood - all within Use Classes 1,2 and 3.1 (BS EN 335-1).



IWS-Ultra (ULTRA joist) Treated Timber

Main Features

The **IWS-Ultra** treatment process initially involves the careful pre-conditioning of our timbers to an average 12% - 14% moisture content over a period of 7 days to become “*super dry*”.

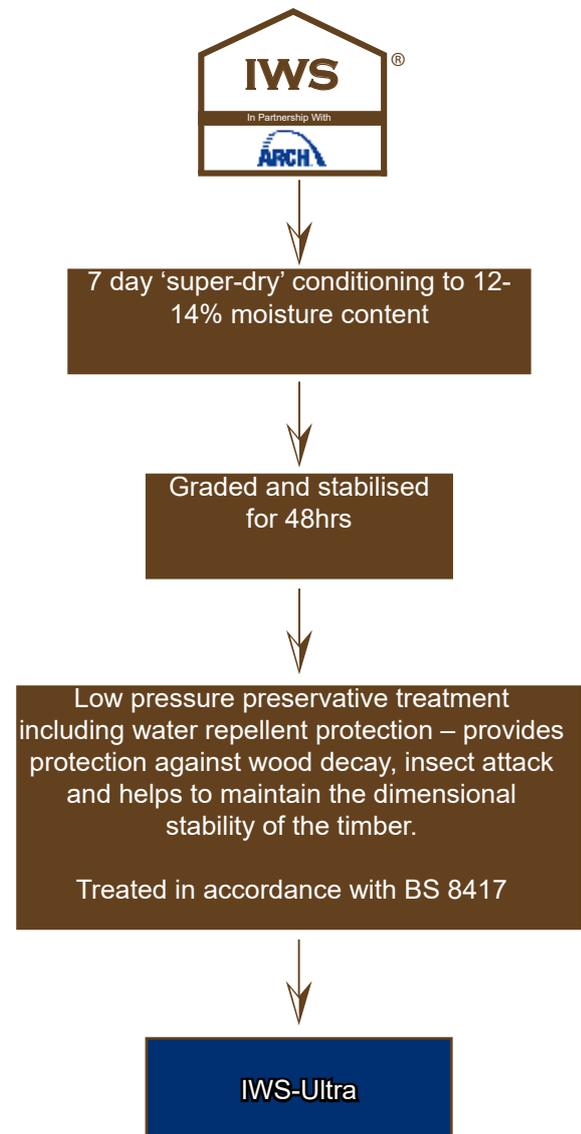
The timbers are then visually graded by trained personnel to ensure uniformity of straightness and appearance prior to formal machine grading and regularising to fine tolerances

The timbers are placed in our treatment vessels where a unique preservative formulation, incorporating a very effective water repellent, is applied using a proven double vacuum, low pressure treatment process. The distinctive pale blue treated timbers not only have a high performance resistance to decay and insect attack with a 60 year anticipated service life for internal building applications, but are also protected against water ingress. This allows the **IWS-Ultra** timbers to retain their strength and straightness characteristics both during and after the build process.

Where cut ends are exposed joists they need to re-treated with Vacsele Aqua 6106.

Vacsol 6151 (**IWS-Ultra**) is registered and cleared for use under the UK Control of Pesticides Regulations. It is a water based product containing ultimately biodegradable organic biocides and does not contain lindane or metal based biocides.

Typical uses for **IWS-Ultra** treated timber include timber frame rim joists, flooring joists and building timbers above damp proof course.



IWS FR-Build

Main Features

The **IWS FR-Build** treatment is a water-based blend of synergistic fire retardant ingredients which was developed with only the timber building fabric in mind. **IWS FR-Build:**

- Was designed for the treatment of timber frame construction timbers and formulated for the specific fire scenarios for this end use
- Is a highly concentrated liquid and requires a single double vacuum treatment only to give the desired fire properties
- Does not contain halides (chlorides or bromides), metals, phosphates or volatile organic compounds
- Is neutral pH and non-corrosive to treatment plant components
- Is available in a water repellent form
- Does not need to be kiln dried after treatment
- Is non-corrosive to metal fixing and fastening
- Has excellent smoke and smoke toxicity characteristics
- Provides impregnation on all faces
- Lasts for lifetime of building



Vacsele Aqua 6106

Main Features

The **Vacsele Aqua 6106** treatment is a brush-on end grain for the re-treatment of cross-cut, notched or bored **IWS-Ultra** or **IWS-Preservative** treated timbers.

The **Vacsele Aqua 6106** treatment maintains the integrity of the treated timber against fungal and insect attack.

The **Vacsele Aqua 6106** is approved by the Health and Safety Executive - HSE 5983

The **Vacsele Aqua 6106** treatment is a water-based, end-grain preservative based on triazole technology. Triazoles are organic ultimately biodegradable biocides.

Application

Apply by brush directly. Stir well before and after use. Use undiluted, liberally swabbing areas exposed by cross-cutting, drilling or notching.

Two liberal coats. Allow time for absorption along the grain of the timber before applying the second coat.

To clean brushes, remove as much product as possible from the brush before washing with water. Please do not pour unused product or brush washings down the drain.

Shelf Life

Minimum 1 year in original sealed cans, stored away from extremes of temperature.

Safety Note

A material safety data sheet is available upon request.

**Recommended for
use with IWS-Ultra
and IWS-Preservative**

CODE OF PRACTICE

Applications

Suitable for all solid timber components used in timber frame buildings.

Appearance

IWS-Preservative treated timber - is a pale yellow colour.

IWS-Ultra treated timber - is a distinct blue colour.

IWS FR-Build treated timber is a distinct purple colour.



Experience has shown to date that there is no particular problem with grain raising. However, as with all water based products, there is potential for this to take place.

Colour variations may occur due to the natural variability of the relative proportions of heartwood and sapwood and darkening of some hardwoods may occur.

We have tested timber treated with the IWS treatments and proven that the protection is consistently present across all surfaces of the timber even if the colour is patchy. This is because colours bind to the timber very quickly and strongly and can be filtered out of packs especially if they are tightly packed. In order to get a more even colour strike we would have to include a number of different chemicals to improve the levelling. These chemicals reduce the binding of the colour so that it penetrates further.



Patchy IWS-FR colour, flame retardant protection is consistent

Confirmation of treatment

Customers are recommended to request a Certificate of Treatment covering their orders. These are available from IWS.

Preparation of Timber (When IWS Service Treating IWS FR-Build)

Present the timber to the treatment plant in a dry and clean condition as follows:

- Dried to a moisture content of 28% or less and preferably to its expected in service moisture content
- All inner or outer bark removed
- Free from dirt, sawdust, surface coatings, surface water, plastic wrapping, ice and snow
- Free from all signs of attack by bacteria, blue staining fungi, wood destroying fungi or insects
- As far as possible, all cutting, machining, planing, notching and boring is to be carried out prior to treatment
- **Do not** excessively tighten banding
- **Must** sticker plywood as follows:
 - a) 6mm deep (10mm wide) between the sheets
 - b) 7 along the width of the sheet
 - c) Edge distance for first one should be 25mm and they should be equally spaced along the width
 - d) All stickers must be directly aligned above each other
- Where possible use treated stickers for timber packs
- **Do not** treat timber wrapped in polythene
- **Do not** treat frozen timber

Post-Treatment Storage and On-Site Protection

When received treated timber should be free from surface liquid. Drying will be accelerated when stored in a well ventilated, weather protected area.

Impregnation of timber imparts a low moisture uptake. This may cause slight swelling across the end grain surfaces. If this occurs treated material should be stored, open stacked, to provide sufficient ventilation for moisture to evaporate. The timber will re-dry to its original dimensions when placed in the same temperature and humidity conditions in which it was machined and profiled prior to treatment

Flat items such as sheets of plywood should be separated and either stickered horizontally or stacked more or less vertically, with air space between them to promote drying.

Building components stored on a building site should be clear of the ground and stacked and protected so that they are not distorted or saturated by rainwater.

Post-Treatment Machining

Some cross-cutting on-site is unavoidable. This will expose an untreated core and it is imperative that for Vacsol Aqua 6112 and Vacsol 6151 treated timber cross-cuts, notches and bored holes be liberally swabbed with Vacsele Aqua 6106 end grain preservative to maintain the integrity of the preservative protection.

Rip sawing, grooving, planing and heavy sanding are not permitted unless the timber is returned for re-treatment to maintain the integrity of the preservative protection.

IWS-FR does not require to be re-applied in line with UKTFA FR guidelines.

Gluing

Pre-Treatment

Assemblies which are to be treated may first be glued using a suitable waterproof adhesive. Consult the glue manufacturer on the suitability and use of their particular product and follow the directions of the appropriate regional standards.

Melamine urea formaldehyde, emulsion polymer isocyanate, melamine formaldehyde and phenol resorcinol formaldehyde types are generally used.

Polyvinyl acetate, Casein, or urea formaldehyde types are **NOT** recommended.

It is important that the glue lines should be fully cured as required by the glue manufacturer, usually several days before the assembly is sent for treatment.

Where enclosed cavities are involved, access holes must be drilled to permit the entry and exit of preservative solutions.

Plywood may be treated provided it is of an appropriate grade.

Timber which is to be bonded prior to treatment with Vacsol Aqua 6112/Vacsol 6151 should be glued using a suitable waterproof adhesive e.g. Resorcinol Formaldehyde, Phenol Formaldehyde, Kascanite and exterior PVA glue. The glue manufacturer's recommendations should be followed at all times and sufficient time allowed for glues to cure properly before treatment

Post-Treatment

Treated timber may be bonded with a range of adhesives, including the following:

Resorcinol Formaldehyde or Phenol Formaldehyde, Urea Formaldehyde, PVA emulsion

When bonding preservative treated timber, care should be taken to prepare the surfaces prior to application of the adhesive.

The glue manufacturer's instructions should be followed at all times.

Where impact adhesives are to be used or highly stressed glue joints are to be made (e.g. 'Glulam' beams) using Vacsol® Aqua treated timber, advice should be sought from the Arch Timber Protection Advisory Service.

Putties, Mastics and Sealants

Reference should be made to BS6262, Code of Practice Glazing for Buildings.

The choice of putties, mastics and sealants is dictated by the characteristics of the primer/basecoat used. It is not influenced by the fact that the timber has been treated. Where any doubt exists advice should be sought from the manufacturer of the putty, mastic or sealant in the first instance and then from Arch Timber Protection.

Metal Fixings & Fittings

i) IWS treatments have no corrosive effect on mild steel fittings and fixture

The timber must be at a moisture content below 20% before mild steel fixings and fittings are applied and must remain below 20% in service.

ii) Where higher moisture contents (above 20%) are expected in service, galvanised steel, stainless steel, copper, aluminium or brass fixings and fittings should be used. At least 24 hours should elapse after treatment before these fixings are applied

iii) For trussed rafter manufacture, the provisions of BS 5268: Part 3 should be followed. Trussed rafters should be stored on-site and out of ground contact. Rafters should be protected in accordance with Section 7 of BS 5268, if the storage time exceeds two weeks.

iv) Zinc sheeting can be applied to IWS treated timber so long as the timber is completely dried - less than 28% moisture content.

Floor Coverings And Plasterboard/Absorbent Composite Board Materials

Where IWS treated timber is to be in contact with floor coverings, plasterboard or other absorbent material, care should be taken to ensure adequate moisture evaporation has taken place prior to fixing, otherwise the substrate may absorb excess IWS treatment solution (see section on over absorbency). If necessary, the moisture content of the timber should be checked. However it should be noted that moisture meters may be affected by IWS treatment. Moisture meters with insulated probes should therefore be used.

Typical Applications

If in doubt about any particular area of application or compliance with other relevant standards or specifications, it is advisable to consult with IWS Technical Team on 01592 630 774.

This list, which is not totally exhaustive, gives an indication of the range of timbers and timber based products which can be treated with IWS Treatments. The treatment process parameters are varied to match the end use of the timber and its species. It is therefore extremely important that you make sure that the timber has been treated to the correct specification

- Structural elements and general timbers in domestic, commercial and public buildings, such as wall frames, sole plates, beams, joists, sub-floors, roof timbers, battens, cladding, roof shingles

Misuse

DO NOT USE IWS TREATED TIMBER IN THE FOLLOWING SITUATIONS:

1. Below dpc and/or in ground contact.
2. In termite areas below the termite shield.
3. In direct contact with foodstuffs.
4. In an exterior situation without a protective coating.

Note: In the situation where IWS treated timber is exposed to high humidity and condensation (e.g. swimming pool roofs), it is recommended that the timber is coated with an appropriate coating containing an effective anti-blue stain biocide.



Intelligent Wood Systems

IWS-Ultra Treated Timber - Customer Information Sheet

1. Identification of Product and Supplier:

Product Name: IWS-Ultra treated timber

Supplier: Intelligent Wood Systems, Station Road, Methven, Perthshire PH1 3QF. Tel 01738 840258

2. Composition Information

IWS-Ultra treated timber contains ultimately biodegradable biocides. It does not contain halogenated products, formaldehyde, heavy metal, phosphates or VOC's.

3. Hazards identification

IWS-Ultra treated timber is classified as hazardous, waste off-cuts or sawdust should preferably be recycled by re-use for intended purpose or disposed of by an authorised waste disposal company.

4. Handling and Storage

When working with timber suitable PPE equipment should be worn

If any notching or cutting of treated timber is carried out then the exposed surfaces should be treated with VACSELE or ENSELE to maintain the integrity of the timber.

After handling or working with treated timber, all exposed skin should be washed before commencing other activities such as eating, drinking or going to the toilet.

Care should be taken when handling the timber particularly with forklifts that there is no damage to the treated timber by careless forklift use, exposing untreated timber. As a general rule no more than 5% of the surface area should be exposed, any more than this you should seek expert advice.

All lengths of timber over 6m length should be handled with a forklift or side loader equipped with a suitable four fork spreader beam attachment to prevent any undue strain on the timbers.

All timber must be stored on bearers clear from the ground and suitably protected from the elements.

Care should be taken when using long lengths and manual handling instructions should be considered.

5. Since the users working conditions are not known by us, the information supplied is based upon our current knowledge of general working procedures. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given above must be regarded as a description of the safety requirements relating to the product and not a guarantee of its properties.



Intelligent Wood Systems

IWS-Ultra FR Treated Timber - Customer Information Sheet

1. Identification of Product and Supplier:

Product Name: IWS-Ultra FR treated timber

Supplier: Intelligent Wood Systems, Station Road, Methven, Perthshire PH1 3QF. Tel 01738 840258

2. Composition Information

IWS-Ultra FR treated timber contains boron. It does not contain halogenated products, formaldehyde, heavy metal, phosphates or VOC's.

3. Hazards identification

IWS-Ultra FR is classified as hazardous, waste such as off-cuts or sawdust should preferably be recycled by re-use for intended purpose or disposed of by an authorised waste disposal company.

4. Handling and Storage

Timber should be received in a dry/damp condition. If this is not the case then the timber should be stored open stacked under ventilated conditions, protected from the elements to dry before use.

When working with timber suitable PPE equipment should be worn

If any notching or cutting of treated timber is carried out then the exposed surfaces should be treated with VACSELE or ENSELE to maintain the integrity of the timber.

After handling or working with treated timber, all exposed skin should be washed before commencing other activities such as eating, drinking or going to the toilet.

Care should be taken when handling the timber particularly with forklifts that there is no damage to the treated timber by careless forklift use, exposing untreated timber. As a general rule no more than 5% of the surface area should be exposed, any more than this you should seek expert advice.

All lengths of timber over 6m length should be handled with a forklift or side loader equipped with a suitable four fork spreader beam attachment to prevent any undue strain on the timbers.

All timber must be stored on bearers clear from the ground and suitably protected from the elements.

Care should be taken when using long lengths and manual handling instructions should be considered.

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Intelligent Wood Systems

IWS-FR Treated Timber - Customer Information Sheet

1. Identification of Product and Supplier:

Product Name: **IWS FR-Build treated timber**

Supplier: Intelligent Wood Systems, Station Road, Methven, Perthshire PH1 3QF. Tel 01738 840258

IWS FR-Build treated timber has been impregnated with **IWS FR-Build** in a vacuum pressure impregnation plant.

2. Composition

IWS FR-Build treated timber contains boron. It does not contain halogenated products, formaldehyde, heavy metal, phosphates or VOC's.

3. Hazards identification

IWS FR-Build treated timber is classified as non-hazardous.

4. Handling and Storage

STA is working on a draft protocol for the use of wood treated with FRs such as IWS FR-Build. This draft protocol includes a test devised by the Wood Protection Association to assess product leaching. IWS FR-Build treated timber has been assessed by this test and fully meets the requirements of this draft protocol.

When working with timber suitable PPE equipment should be worn

After handling or working with treated timber, all exposed skin should be washed before commencing other activities such as eating, drinking or going to the toilet.

Care should be taken when handling the timber particularly with forklifts that there is no damage to the treated timber by careless forklift use, exposing untreated timber. As a general rule no more than 5% of the surface area should be exposed, any more than this you should seek expert advice.

All lengths of timber over 6m length should be handled with a forklift or side loader equipped with a suitable four fork spreader beam attachment to prevent any undue strain on the timbers.

All timber must be stored on bearers clear from the ground and suitably protected from the elements.

Care should be taken when using long lengths and manual handling instructions should be considered.

5. Since the users working conditions are not known by us, the information supplied is based upon our current knowledge of general working procedures. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information given above must be regarded as a description of the safety requirements relating to the product and not a guarantee of its properties.



IWS FR-Build Preservative Treated Timber - Customer Information Sheet

1. Identification of Product and Supplier:

Product Name: **IWS FR-Build Preservative treated timber**

Supplier: Intelligent Wood Systems, Station Road, Methven, Perthshire PH1 3QF. Tel 01738 840258

IWS FR-Build Preservative treated timber has been impregnated with IWS-FR Preservative in a vacuum pressure impregnation plant.

2. Composition

IWS FR-Build Preservative treated timber contains boron and ultimately biodegradable biocides. It does not contain halogenated products, formaldehyde, heavy metals, phosphates or VOCs.

3. Hazards identification

IWS FR-Build Preservative treated timber is classified as hazardous waste. Off-cuts, waste or redundant timber should be disposed of by approved landfill or to an approved waste incinerator.

4. Handling and Storage

IWS FR-Build Preservative treated timber should be used in conjunction with a build strategy that minimises exposure to rainfall during construction and storage. Under the correct use and storage there will be minimal emissions to the environment. **IWS FR-Build Preservative** treated timber does not emit gases to the atmosphere during use.

IWS FR-Build Preservative treated timber should be handled with the same precaution as untreated timber. Precautions should be taken to minimise exposure to those working with treated timber, especially to wood dusts.

When working with timber suitable PPE equipment should be worn

If any notching or cutting of treated timber is carried out then the exposed surfaces should be treated with VACSELE or ENSELE to maintain the integrity of the timber.

After handling or working with treated timber, all exposed skin should be washed before commencing other activities such as eating, drinking or going to the toilet.

Care should be taken when handling the timber particularly with forklifts that there is no damage to the treated timber by careless forklift use, exposing untreated timber. As a general rule no more than 5% of the surface area should be exposed, any more than this you should seek expert advice.

All lengths of timber over 6m length should be handled with a forklift or side loader equipped with a suitable four fork spreader beam attachment to prevent any undue strain on the timbers.

All timber must be stored on bearers clear from the ground and suitably protected from the elements.

Care should be taken when using long lengths and manual handling instructions should be considered.

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