



**VACSOL®**  
**AZURE**

## TREATED TIMBER & PLYWOOD CODE OF PRACTICE

Helping you make the most of timber

### DEFINITION

Vacsol® Azure treated timber is timber which has been impregnated with Vacsol® Azure organic solvent based wood preservative under controlled conditions in a double vacuum/low pressure timber impregnation plant (Vac-Vac® plant). This results in a highly effective envelope of treatment.

Vacsol® Azure is an organic solvent based wood preservative that contains organic active ingredients (triazole fungicides and an insecticide). It conforms to European Standards for the treatment of construction and joinery timbers and provides a long term protection for both internal and external (above ground contact) timbers.

Vacsol® Azure treated timber must only be used above the dpc level and/or above ground contact. Exterior joinery/woodwork must be subsequently protected with a maintained surface coating.

In termite areas, Vacsol® Azure treated timber should only be used above the termite shield.

This document provides guidance on using Vacsol® Azure treated timber within the UK. For other geographic markets, additional relevant regulations and requirements may need to be considered.

### VACSOL® AZURE WOOD PRESERVATIVES

Vacsol® Azure wood preservatives are approved for use as directed under the Control of Pesticides Regulations (COPR) by the UK Health & Safety Executive. The biocides contained in Vacsol® Azure wood preservatives are being supported under the Biocidal Products Directive.

### SPECIFICATION

Consult the Arch Timber Protection Specifier's Guide to Vacsol® treated timber.

It should be noted that the treatment process parameters are varied, taking into account timber species, desired service life and to match the end use (Use Class) of the timber. It is therefore extremely important that the end use and species of the timber are clearly stated within the specification. Use Classes are defined in BS EN 335-1 but can be summarised as follows:

- Use Class 1 - internal building timbers - no risk of wetting.
- Use Class 2 - internal building timbers - risk of wetting.
- Use Class 3.1 - external timbers used above ground contact and coated.
- Use Class 3.2 - external timbers used above ground contact and uncoated.
- Use Class 4 - external timbers used in ground or fresh water contact.

### APPEARANCE

After the application of clear Vacsol® Azure wood preservative by the Vac-Vac® process, the appearance of timber is virtually unchanged.

## CONFIRMATION OF TREATMENT

Customers are recommended to obtain a Certificate of Treatment covering their orders. These are available from the processor.

Please note that the treatment process parameters are varied according to the timber species and end use of the treated timber commodity, taking into account the potential for biological degradation.

## PREPARATION OF TIMBER FOR TREATMENT

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

- Dried to a moisture content of 28% or less.
- All inner or outer bark should be 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 - (see section on post-treatment machining).
- DO NOT attach metal fittings prior to treatment.
- DO NOT excessively tighten any banding around the timber pack.
- Use sticker-stacked pack configurations to optimise post-treatment drying.
- DO NOT treat timber wrapped in polythene.
- DO NOT treat frozen timber.
- Sheet materials, e.g. plywood, should be stickered at least every second layer before treatment.
- Ideally timber and sheet material should be sloped in the treatment vessel to aid preservative run off during final vacuum of the treatment process. This promotes good post-treatment drying.
- Excessive tight banding on timber packs, on bogie strapping and on planed dressed material, should be avoided.
- Where close tolerance work is involved it is advisable to pre-machine the timber at the 'in-service' equilibrium moisture content. It is then the contractor's responsibility to ensure that the need for re-drying is recognised and allowed for.

## POST-TREATMENT STORAGE AND ON-SITE PROTECTION

The bulk of Vacsol® Azure treated material is supplied from stock. In other cases, the timber may be received direct from the treatment plant. It may be oily to the touch and may smell of solvent. The solvent will continue to evaporate and this fact should be taken into account.

Drying will be accelerated when stored in a well ventilated, weather protected area.

Flat items such as doors and sheets of plywood should be separated and either stickered horizontally or stacked more or less vertically with air space between them. This will promote the evaporation of the solvent.

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.

If Vacsol® Azure treated timber is to be used in food storage areas, steps should be taken to ensure that all the solvent has evaporated prior to installation and that the treated timber does not come into direct contact with food stuffs.

## POST-TREATMENT MACHINING

Some cross-cutting on-site is unavoidable. This will expose an untreated core and it is imperative that cross-cuts, notches and bored holes be liberally swabbed with Vacsele® 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.

## GLUING

### PRE-TREATMENT

Assemblies which are to be treated with Vacsol® Azure wood preservative may first be glued satisfactorily with any standard wood glue - with the exception of Casein - provided the adhesive is fully cured. The active ingredients have no harmful effects on the cured adhesive and the solvent itself does not cause swelling of the wood.

At all times, the glue manufacturer's instructions and the directions of the appropriate regional standards should be followed.

### POST-TREATMENT

Building timber components and exterior joinery are not normally glued on-site, but if the occasion should arise (and with joinery components which are assembled after treatment) any standard wood glue - with the exception of Casein - may be used.

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® Azure treated timber, advice should be sought from the Arch Timber Protection Advisory Service.

## PUTTIES, MASTICS & 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 Vacsol® Azure 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.

## SURFACE COATINGS

Over-absorbent timber may adversely affect decoration. Care should be taken to ensure adequate drying of timbers suspected of over absorbency or thin timbers, e.g. cladding and beading, before any surface coating is applied.

Arch Coatings UK (Tel 01977 673363) supplies a range of solvent and waterbased primers and basecoats which are compatible with Vacsol® Azure treated timber. These are recommended for use when factory finishing is envisaged. When other coatings are to be used the advice of Arch Timber Protection and the coating manufacturer should be sought.

The following notes apply to common painting practice.

### PAINTING

#### i) Windows

Vacsol® Azure treated windows are over-paintable with most industrial joinery primers and basecoats provided a minimum of 48 hours air drying time is allowed after treatment (see section on over absorbency). For this air drying time, the timber should be open-stacked and in a well ventilated area.

- a) Where acrylic primers are to be used, it is advisable to carry out a simple test to establish compatibility.
- b) When using aluminium leafing primers longer periods of drying may be necessary after Vacsol® Azure treatment due to the sealing characteristics of this type of coating.

- c) A further 12-14 days should elapse before the undercoat and gloss finishes are applied, allowing normal drying time before applying each coat.
- ii) Doors  
In the case of Vacsol® Azure treated doors and the application of a primer or basecoat, it is recommended that a 48 hour drying period should be taken from the time that the packs of doors are separated, regardless of the period of time after treatment, as treated doors, close piled, do not dry readily in a stack. A further 12-14 days should elapse before applying final undercoat and gloss finishes.
- iii) Plywood  
The time allowed between treatment and priming depends upon drying conditions, the types and thickness of plywood used and the amount of preservative absorbed during treatment. Before applying a basecoat, it is recommended that at least 72 hours be allowed from the time sheets of treated plywood are separated for drying under favourable conditions, and that a further 12-14 days elapse before final undercoat and gloss finishes are applied.

## STAINING

The first coat of the decorative stain of the non-rigid film type can be applied to Vacsol® Azure treated timber, providing that a minimum of 48 hours after treatment has elapsed during which the timber has been open-stacked and well ventilated. A period of 12-14 days should elapse prior to applying subsequent coats.

The above notes (ii) and (iii) for painting also apply for the staining of doors and plywood.

## METAL FIXINGS & FITTINGS

Vacsol® Azure treatment has no corrosive effect on nails, screws, bolts, toothed plates, etc. and no deviation from normal practice is necessary for Vacsol® Azure treated timbers.

## FLOOR COVERINGS

Where latex or synthetic backed floor coverings, etc. are to be laid on Vacsol® Azure treated timber, it is essential that all the solvent has evaporated from the timber. Failure to do so could damage the floor covering.

## BITUMINOUS, PLASTIC OR PAPER BASED PRODUCTS

Any organic solvent treated timber may cause problems when placed in direct contact with these materials, if the treated timber is installed too soon after treatment, or if the treatment process used has resulted in a very high retention of wood preservative. Care should be taken to ensure that adequate solvent evaporation has taken place before installation of Vacsol® Azure treated timber.

## 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 Arch Timber Protection using the contact details given in this document.

This list, which is not totally exhaustive, gives an indication of the range of timbers and timber based products which can be treated with Vacsol® Azure wood preservative. 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.

### HARDWOOD EXTERIOR JOINERY

Hardwood window frames and casings, exterior doors and frames.

## TYPICAL APPLICATIONS (continued)

### PLYWOOD

Under previous systems WBP (weather and boil-proof) grade plywood was classified under BS1204. This standard has now been withdrawn.

Now plywood grades are based on BS EN 636 (Dry, Humid and Exterior classifications), which themselves are based on bonding classes 1, 2 and 3 from BS EN 314 Part 2. Plywood that is either WBP or BS EN 636 Exterior grade (BS EN 314 Part 2 bonding class 3) should now be specified. Humid grade (bonding class 2) might be acceptable, but the board manufacturer or supplier should be asked to confirm that Humid grade board can be put through a double vacuum (Vac-Vac®) treatment process.

### EXTERNAL BUILDING TIMBERS

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.

### SOFTWOOD EXTERNAL JOINERY

Softwood window frames and casings, soffits, barge and fascia boards, cladding, load bearing joinery and doors.

## REPLACEMENT TIMBERS

Where Vacsol® Azure treated timber is being installed during remedial work e.g. flooring, it is essential that adequate ventilation is given to enable the solvent vapours to dissipate. Consideration should also be given to adequate ventilation when the property is to be occupied during the replacement work.

## MISUSE

DO NOT USE VACSOL® AZURE 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 Vacsol® Azure 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.

## OVER ABSORBENCY

Occasionally, a parcel of timber will contain some pieces which have an abnormally permeable sapwood. Such pieces should be placed on one side for prolonged drying before overpainting/staining or the fixing of porous materials which may absorb the excess solution and adversely affect subsequent decoration.

## HEALTH, SAFETY, HANDLING AND DISPOSAL

Reference should be made to the Consumer Information Sheet for Vacsol® treated timber and plywood. This is available from the Arch Timber Protection Advisory Service. The Consumer Information Sheet is also relevant for COSHH purposes.

## FURTHER INFORMATION

Consumer Information Sheet for Vacsol® treated timber.

Specifier's Guide for Vacsol® treated timber.

For further information, please contact the Arch Timber Protection Advisory Service at the address below.

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