

TANALISED[®]
CLEAR

PRESSURE TREATED TIMBER

TANALITH[®]
M

WOOD PRESERVATIVE

**PRESSURE TREATED
TIMBER & PLYWOOD
CODE OF PRACTICE**

Helping you make the most of timber

GUIDANCE FOR USE

This document is designed to assist those using or specifying TANALISED Clear pressure treated timber in terms of ancillary properties and health and safety guidance.

DESCRIPTION

TANALISED Clear pressure treated timber is timber which has been impregnated with TANALITH M wood preservative under controlled conditions in a vacuum pressure timber impregnation plant.

When impregnated into the timber the preservative components are deposited within the wood structure and cannot easily be removed.

TANALISED Clear pressure treated timber gives long term protection against fungal decay and insect attack (including termites where appropriate) and is specifically designed for outdoor, above ground contact situations. In addition, it protects the timber against the growth of disfiguring, staining fungi which are often associated with unsightly black discolourations on the surface of the timber that can seriously affect its visual appearance.

TANALITH M WOOD PRESERVATIVE

The biocides contained in TANALITH M are being supported under the Biocidal Products Directive.

Where national standards apply prior to BPD being fully introduced, approval has been sought from the relevant Competent Authority.

TANALITH M is a water-based timber preservative that contains the following organic biocides:-

Tebuconazole:	<0.4%
Propiconazole:	<1.2%
Permethrin:	<0.13%

It is supplied as a concentrated product which is normally diluted to a solution strength of 2% with uptakes into the timber typically 80 to 200 litres per cubic metre. For COSHH (Control of Substances Hazardous to Health) purposes please see the health and safety section of this document.

APPEARANCE

Timber is a variable and natural product. The colour of TANALISED Clear pressure treated timber is virtually the same as untreated timber. Upon external exposure the colour slowly softens to a sun lightened white which gradually changes to a natural driftwood grey with time.

TYPICAL APPLICATIONS

It is advisable to consult with Arch Timber Protection using the contact details given in this document if in doubt about any particular area of application or compliance with other relevant standards or specifications.

This list, which is not totally exhaustive, gives an indication of the range of uses for TANALISED Clear pressure treated timber. In all cases, the treated timber should not be used directly in ground contact or in permanent water contact. Nor should it be used where it may become a component of food or drinking water e.g. storage containers or food preparation surfaces.

The treatment process parameters may vary 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.

TYPICAL APPLICATIONS (CONTINUED)

EXTERNAL BUILDING

Decorative cladding, external joinery.

GARDEN & LANDSCAPING

Log cabins, decking boards and balustrades, pergolas, gazebos, bridges, summer houses, surrounds to fish ponds (but not in direct contact with or overhanging the water), playground equipment, picnic benches and tables; all in above ground use.

INTERNAL BUILDING

Foundations, basements and sub-floors, ground sills, wall frames, beams, joists, roof timbers, battens, roof shingles, and general timber in domestic, commercial and public buildings.

TRANSPORT

Floors and other timbers for railway and road vehicle, container floors and linings, packing cases, cable drums and hatch covers.

SPECIFICATION

Consult the Arch Specifiers' Guide to TANALISED Clear pressure treated timber.

TANALISED Clear pressure treated timber is designed specifically for use in outdoor, above ground situations defined as Use Classes 3.1 (coated) and 3.2 (uncoated), although it is equally suitable for indoor use above d.p.c. – Use Classes 1 and 2. Use Classes are defined in the European Standard BS EN 335.

Suitable timber species include softwoods and hardwoods whose sapwood is classified as not durable in BS EN 351. Examples include pine, spruce, larch and douglas fir.

Where termite protection is required, this should be made clear within the specification.

Consumers are advised to obtain a Certificate of Treatment to cover each order.

PREPARATION OF TIMBER FOR TREATMENT

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

- 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).
- Dried to a moisture content of 28% or less with the exception of spruce which may treat more effectively in the range 30 to 40%.
- All inner or outer bark removed.
- Free from dirt, sawdust, surface coatings, surface water, plastic wrapping, ice and snow. This is particularly important as TANALITH M preserves the natural aspect of the timber and will not mask any visible imperfections already present on the timber's surface.
- Free from all signs of attack by bacteria, blue staining fungi, wood destroying fungi or insects.
- Do not fix metal fittings prior to treatment.
- Do not excessively tighten banding.
- Use sticker stacked pack configurations to optimise post treatment drying.
- Where possible use treated stickers for timber packs.
- Do not treat timber wrapped in polythene.
- Do not treat frozen timbers.

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.

COLLECTION AND STORAGE OF TREATED TIMBER

Liaison between the customer and the supplier is necessary to determine when the timber will be ready for collection.

You should receive the timber in a drip free condition with no sign of preservative liquid on the surface. If this is not the case, the timber should be allowed to dry before use by storing open stacked, under ventilated conditions and protected from rain and snow. Do not wrap wet treated timber in polythene.

It is best practice to store timber undercover under well ventilated conditions prior to use.

POST-TREATMENT MACHINING

As far as possible all cutting, machining, planing, notching and boring is to be carried out prior to treatment.

Where cross cutting, boring or notching has to be carried out, the area of timber revealed by the cross cuts, holes or notches must be liberally brushed with a suitable end grain preservative in accordance with manufacturer's instructions. Pieces which are rip sawn, thickened, equalised or planed must be returned to the treatment plant for re-treatment.

GLUING

TANALISED Clear pressure treated timber dried to less than 20% moisture content and in equilibrium or within 5% of its expected in service moisture content may be glued with most commonly available adhesives.

In consultation with the adhesive manufacturer, select an adhesive appropriate to the in service exposure condition and appropriate for load bearing or non load bearing requirements. Consult the glue manufacturer on the suitability and use of their particular product and follow the directions of the appropriate regional standards.

For load bearing constructions melamine urea formaldehyde, melamine formaldehyde, emulsion polymer isocyanate and phenol resorcinol formaldehyde are recommended.

For non load bearing constructions, emulsion polymer isocyanate, polyurethane, polyvinyl acetate, urea formaldehyde, melamine urea formaldehyde melamine formaldehyde and phenol resorcinol formaldehyde are recommended.

TREATMENT OF PRE-GLUED ASSEMBLIES

Assemblies which are to be treated with TANALITH M wood preservative 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.

Recommended adhesives which may be used are melamine urea formaldehyde, emulsion polymer isocyanate, melamine formaldehyde and phenol resorcinol formaldehyde.

Polyvinyl acetate, Casein, or urea formaldehyde adhesives 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.

Access holes must be drilled to permit the entry and exit of preservative solutions where enclosed cavities are involved.

Suitable plywood would have formerly been classified as WBP grade (weather and boil proof) under BS1204. However, this standard has now been withdrawn. It is superseded by BS EN 636 where plywood grades are classified as dry, humid or exterior. These are further classified in BS EN 314 Part 2 into bonding classes 1, 2 or 3.

Plywood that is either exterior grade, bonding class 3 should now be specified. Humid grade, bonding class 2 may also be acceptable but the manufacturer should be contacted to confirm that the board can withstand high pressure treatment.

PAINTING AND STAINING

TANALISED Clear pressure treated timber does not have to be painted or stained to maintain its preservative properties.

Many coatings products are available on the market and whilst Arch Timber Protection has tested a broad range of these for compatibility with TANALISED Clear pressure treated timber, it is not possible to test all of them. Always consult the coating manufacturer's recommendations.

If TANALISED Clear pressure treated timber is to be painted, stained or varnished the timber should be dried throughout the cross section.

PAINTING AND STAINING (CONTINUED)

Always follow the manufacturer's instructions taking note of the recommended maximum moisture content. It should not be assumed that the treatment is a substitute for knotting, base coating or priming.

METAL FIXINGS AND FASTENINGS

GENERAL ADVICE

TANALISED Clear pressure treated timber has a long life expectancy and it is appropriate to use metal fixings and fastenings that will have a comparable length of life. Performance of metal fixings is influenced by the environmental conditions including moisture content, temperature, atmospheric pollution, proximity to coastal locations, timber species as well as the thickness of any zinc coating and it is impossible to accurately predict the service life of any specific installation.

- Always contact the suppliers of connectors and fasteners for specific recommendations.
- Attach connectors/fasteners/fittings after preservative treatment only after the timber has re-dried to less than 20% moisture content.
- It is important that all fasteners are compatible to prevent bimetallic corrosion; do not mix galvanised and stainless steel components.
- It is important that the specifier is aware that there are many thicknesses of galvanised coating available and the thicker the galvanised coating the longer the expected service life. The level of galvanising should be commensurate with the end use.
- Electroplating is not thick enough to be used in exterior conditions and is not recommended for long service lives.
- Direct contact with aluminium should be avoided.
- Metal fasteners and other structural connections should, where necessary, either be inherently corrosion resistant or be protected against corrosion.
- Safety critical and load bearing components should be inspected regularly and replaced if necessary.
- Specialist advice should be obtained in the selection of connectors for use in Swimming pool buildings. Detailed advice is contained in the Nickel Development Institute document Stainless Steel in Swimming Pool Buildings 1995.

INTERIOR, DRY APPLICATIONS

For internal building timbers, e.g. truss rafters, it will be necessary to re-dry the timber to a moisture content of 22% or less before assembly and to maintain the timber in this condition during storage and delivery to site as recommended in BS5268 Part 3 Section 13.

FASTENERS E.G. NAILS/ SCREWS

For internal building low hazard situations where the moisture content of the treated timber will not exceed 20% throughout its service life (BS EN 1995-1-1:2004 Eurocode 5 service classes 1 and 2) electroplated, sherardised, hot dip galvanised or the equivalent mechanically galvanised steel nails, dowels and screws may be used. Better performance will be obtained from fittings with higher levels of galvanising.

CONNECTORS

For internal building low hazard situations where the moisture content of the treated timber will not exceed 20% throughout its service life (BS EN 1995-1-1:2004 Eurocode 5 service classes 1 and 2), punched plate fasteners and steel plates up to 5mm thick should be a minimum of Z275 (275g/m² zinc) hot dip galvanised coated steel.

EXTERIOR APPLICATIONS

FASTENERS E.G. NAILS / SCREWS/ STAPLES

For exterior situations, hot dip or mechanically galvanised fasteners are recommended, better performance will be obtained from fittings higher levels of galvanising.

Fasteners with proprietary anticorrosion technologies are also available; always contact the fastener supplier for specific recommendations.

For long service lives and/or high hazard situations such as continual high moisture or saltwater exposure, stainless steel fasteners are recommended.

METAL FIXINGS AND FASTENINGS (CONTINUED)

ROOFING AND SHEETING

Refer to BS 5534:2003 Code of Practice for slating and tiling. Nails for use with slates should be of copper, phosphor or silicon bronze. Nails for use with tiles should be stainless steel, copper, phosphor or silicon bronze. The use of aluminium and galvanised steel nails is not recommended.

For contact areas between hot dip galvanised corrugated steel sheet, where condensation is possible the timber should be insulated using a spacer or barrier.

Copper sheeting/flashing is recommended, tarnishing will occur.

Zinc lead sheeting/flashing are suitable where the moisture content of the timber will remain below 18%. Where the moisture content will exceed 18% or condensation is possible, contact areas with timber should be insulated using a spacer/ barrier or impervious insulating coating.

CONNECTORS

Z275 (275g/m² zinc) hot dip galvanised coated steel connectors are recommended as the minimum level of galvanising for outdoor or high humidity end uses.

Z600 (600g/m² zinc) hot dip galvanised or appropriate grade stainless steel (austenitic excluding free machining grades) connectors should be considered for outdoor use where a long service life is required.

Where severe corrosive conditions exist or for safety critical load bearing components, stainless steel connectors are recommended.

ALUMINIUM

Where aluminium flashing or fittings are used in exterior situations where moisture content is likely to exceed 18%, the aluminium must be separated from the timber using a bituminous, epoxy or other impervious barrier or electrically insulating coating. The use of nylon/plastic washers is recommended.

HEALTH AND SAFETY

HANDLING

The following precautions apply equally to untreated timber:-

When working with timber, wear gloves to protect the skin against abrasions and splinters.

Protect any cuts and abrasions with a waterproof dressing.

When power-sawing and machining, wear goggles to protect the eyes from flying particles. Wear a dust mask and, whenever possible, perform such operations outdoors to avoid accumulations of airborne sawdust.

Avoid frequent or prolonged inhalation of sawdust. Consult HSE Guide EH40, available on the HSE website (www.hse.gov.uk) for further information on workplace exposure limits for wood dust.

In order to prevent injury, care should be taken when lifting or moving timber.

PERSONAL HYGIENE

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

If sawdust accumulates on the clothes, clean them before re-use. Launder heavily soiled clothes separately from other household wash items.

DISPOSAL

TANALISED Clear pressure treated timber and post treatment processing wastes such as sawdust and offcuts, must not be used for animal litter or bedding nor for fuel in barbecues, cooking stoves or grates.

TANALISED Clear pressure treated timber is classified as hazardous waste under the interpretation of the UK government technical guidance for the classification of hazardous waste from the Hazardous Waste Directive. End of life TANALISED Clear pressure treated timber may be hazardous waste depending on the level of preservative remaining in the wood and the legislation in force at the time the waste arising is consigned.

DISPOSAL (CONTINUED)

Householders should dispose of the timber or sawdust through normal household collection systems or to their local council household waste site.

Any redundant timber or sawdust from commercial or industrial use (e.g. construction sites) should be disposed of through an authorised waste disposal company. Incineration must be in compliance with the Waste Incineration Directive.

European Member States other than the UK may make their own assessments as to whether such waste should be classified as hazardous or non-hazardous and the above classification may differ in other EU countries.

National Interpretations of the Hazardous Waste Directive can vary from Member State to Member State. The above classification may differ in other EU countries.

FURTHER INFORMATION

Specification Guide for TANALISED Clear pressure treated timber.

For further information please contact Arch Timber Protection using the contact details below.

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This Code of Practice has been written for businesses purchasing Tanalith® M products from Arch Timber Protection Limited. The customer is advised to read the Code of Practice in full as it contains important information, but the customer needs to decide for itself whether or not the product is suitable for its or the end users particular purposes and should ensure that its employees, contractors and others working for it and who will use the products do so in a safe manner. This document is intended for use by businesses only and is not intended to be used by retail consumers.



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Responsible Care

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