TECHNICAL DATA SHEET No 3

SERVICE CLASS 3 APPLICATIONS IN TREATED GLULAM

RECOMMENDED GUIDELINE ONLY

Technical Data Sheets

Introduction

This Data File has been prepared as recommendations for guidance in specifying Glulam for an external Service Class 3 application calls for chemically treated Glulam. (Service Classes 1-3 are defined in AS NZS 1328.1 in clause 1.3.10 to 1.3.12 respectively)

This information must be treated as general in nature, with it being incumbent upon the prospective user of glulam in Service Class 3 environments to seek professional advice from GLTAA accredited Glulam suppliers about their intended application.

Details of installation recommendations are available in GLTAA Technical Data Sheet No. 2.

Preservative treatments

The preservative preservation of wood is managed by compliance to AS/NZS 1604.5. Glulam to used in Service Class 3 applications should be treated to Hazard Class 3 as a minimum if outside above ground, with any close to ground contact requiring H4 treatments.

AS/NZS 1604.5 includes within Hazard Class H3, a H3A class, described as being applicable for non-critical members.

With treatment technology available at the time of publication of this document, typically Glulam beams treated to H3A are usually post production pressure treated in their final shape and form, and are thus deemed an envelope treatment.

H3 Glulam is typically made up of lamella that is pre-treated to H3.The pre-treated lamella ensure that the treated wood is equally distributed within the Glulam member, and is deemed more resistant to biological hazards than the H3A treatment.

When to use H3A

Table A1 of Appendix A of AS/NZS 1604.5 is a good reference to determine when to use H3A or H3 Hazard Class preservation levels.

Glulam treated to the H3 Hazard class may be used in H3A applications, but NOT vice versa.

Given the large variety of glulam sizes and grades available, it is not common for a wide selection of H3 treated glulam to be available off the shelf, apart from a few common sizes.

H3A treatment is commonly achieved by having an order of glulam beams pressure treated, prior to supply. This allows a glulam stockist to stock a wider range of untreated glulam stock, and treat it to as required.

While H3A treated glulam may be quicker and easier to acquire from a practical prospective, it is important that it is NOT substituted for an application where the H3 hazard class needs to be met.

Use of Hardware

All bolts, screws, nails plus brackets, framing anchors and other hardware in contact with preservative treated Glulam should be hot dipped galvanised, monel, silicone bronze or stainless steel. Electroplated fasteners are not suitable due to early break down of the plating.

BRANZ, a highly respected independent research organisation in New Zealand that is integral to the New Zealand building system, has completed long term tests on copper based H3 treatments such as ACQ and CA which demonstrated increased corrosion rates for fasteners compared to CCA.

BRANZ now recommends fasteners for these treatments should be either 304/316 grades of stainless steel or durable equivalents, such as silicon bronze.

Handling of LOSP Treated Glulam

Handling and working with treated Glulam is identical to any other preservative treated wooden article.

The AS 5605 series provides consumer safety information for the following treated timbers:

1. AS 5605-1 CCA
2. AS 5605-2 ACQ
3. AS 5605-3 CA
4. AS 5605-4 LOSP
5. AS 5605-5 Creosote
6. AS 5605-6 Bifenthrin

NOTES:

1. Because of restrictions place upon the use of CCA by Australian Pesticides and Veterinary Medicines Authority (APVMA), it would be likely that only Glulam for specialised applications would be treated with CCA
2. Creosote is mainly used in the pressure impregnation for heavy duty applications such as utility poles, railway sleepers etc. and due to its pungent odour, would not be used for Glulam within buildings

A general summary is as follows:

- Wear gloves and long sleeved shirts
- After handling, wash exposed skin areas thoroughly with mild soap and water
- Wear a dust mask compliant to AS 1716 when machining any wood to reduce the inhalation of wood dust. This applies to all wood dust, not only wastes containing preservative chemicals. Avoid frequent or prolonged inhalation of sawdust
- Keep work areas clean and maintain airborne dust levels below maximum recommended exposure standards. Machining operations should be performed outdoors whenever possible to avoid indoor accumulations of airborne sawdust
- Wear appropriate eye protection to reduce the potential for eye injury from wood particles and flying debris during machining

SERVICE CLASS 3 APPLICATIONS IN TREATED GLULAM

RECOMMENDED GUIDELINE ONLY

- If preservative treated sawdust accumulates on clothes, launder before reuse
- Wash work clothes separately from other household clothing.

Disposal of Off-Cuts and Waste

Off- cuts and sawdust from treated wood needs to be disposed of according to the requirements of the respective state EPA.

The following are general principles:

- Do not burn treated wood in open fires, stoves, fire places or any confined space. They may be burned in plants specifically approved for that purpose
- Do not discard the material on the land or use treated wood as ground mulch
- Do not use treated wood waste for animal bedding
- Small quantities of treated wood wastes, such as off-cuts generated during home projects may be disposed of through normal household waste collection services or at local landfills
- Treated timber should not be placed in any green waste or garden organics recycling bins
- Trade users of treated timber should be able to dispose of off-cuts and redundant pieces through normal commercial waste collection services or at local landfills. However, regulations and local services vary so it is advisable to contact the local council, the state environment protection agency, or your treated timber supplier for advice on appropriate disposal or recycling options.

Technical Data sheets