

# Frequently Asked Questions



## FACT SHEET

### **Q - Why Should I Use Timberlab Glulam Instead of Solid Timber?**

A - Because TimberLab Glulam is manufactured from selected grade, kiln dried material, it is stronger and more stable than a solid timber beam of the same section. The tendency of large section solid timber to twist, split and shrink is greatly minimised in Glulam. A Glulam beam can reduce the overall section of members by up to 40% compared to unseasoned timber.

### **Q - Why should I use TimberLab Glulam Instead of Steel?**

A - Here are just a few reasons-  
Easier and lighter to handle and fix - Friendlier on the environment; stores carbon rather than emitting it - Uses NZ's only renewable construction material; plantation timber - Uses 14 times less energy to produce than equivalent steel beam - Superior Fire Resistance compared to steel - Lower maintenance; Glulam does not rust or corrode - Cost effective; no boxing in or covering as with steel beams - Appearance; natural warmth and beauty of timber cannot be reproduced in steel or concrete; will not buckle or distort in response to temperature changes - Direct fixing of plates, joists and other connections is much easier.

### **Q -What Type of Quality Assurance Comes with TimberLab Glulam Beams?**

A - All TimberLab Glulam manufactured to comply with Australia and New Zealand Standards. Licensed manufacturers are regularly audited by AsureQuality and issued with an individual license number. This certifies that the manufacturer's production system complies with the detailed requirements of AS/NZS 1328 - Glue Laminated Structural Timber. Audits are carried out by AsureQuality to ensure compliance and quality.

### **Q - How Should I Handle Glulam Beams?**

A - Avoid the use of chains or hard ropes that might damage the edges of beams. When lifting, ensure the beams are evenly supported and use fabric slings properly secured to prevent any

slipping. Avoid any sudden movements when lifting. Be careful not to handle and lift long beams on their weak axis - flat, as they are designed to act as a beam not a plank.

Remember these are pre-finished members and a lack of care during storage and installation will affect the finished appearance.

### **Q -How Long Should I Keep Wrapping On?**

A - Wrapping of Glulam beams is primarily to protect them from marking during handling and transport. This is not designed to be a waterproof protection. Once on-site, water can often get in under the wrapping and cannot get out. Wrapping should be slit to provide drainage. Wrapping should be left on Glulam beams for as long as possible (even during construction) to protect against accidental marking. Also, be aware that partial removal of wrapping to access connections may cause patches of discolouration by exposure to weather.

### **Q -Are There Any Recommendations for Storage of Timberlab Glulam?**

A - In order to maintain the best condition of manufactured TimberLab Glulam, proper storage and handling is important. It should be stacked well clear of the ground and protected from the elements. Stacks of beams should be covered with a weather- proof material ensuring adequate ventilation to prevent condensation building up. Avoid black polythene as this will make the beams sweat. If possible, fillet stack beams to allow air circulation.

### **Q -Do I Need Special Connections for My Beams?**

A - Glulam can be treated as natural solid timber when it comes to fixings. The use of standard nailing systems and bolts is normal. In exposed situations dark stains can appear from the use of unprotected steel brackets and bolts. Use galvanised metalwork where there is any possibility of moisture.



**Q -Will CCA Treated Glulam Cause Corrosion on Galvanised Fixings?**

A - While this may be a problem with solid unseasoned timber, Glulam does not act in the same way. All Glulam is manufactured from material that is kiln dried after treatment and the treatment salts are thoroughly fixed into the timber. They will therefore not subsequently leach out or affect galvanised fixings. For additional protection, bolts may be greased before inserting into CCA treated Glulam beams that are exposed to weathering.

**Q -Can TimberLab Glulam beams be used in Exterior Situations?**

A - Yes. Treatment to hazard class 3 (H3.2) is recommended for all Glulam beams exposed to the weather. Along with this treatment, an exterior adhesive such as resorcinol adhesive should be used. The finished beams must be suitably coated & maintained with either a penetrating sealer or paint coating. When painting or staining external TimberLab Glulam beams it is preferable to use lighter colours. Dark colours attract heat and may cause surface shrinkage. Because TimberLab Glulam is chemically inert, it is ideally suited to corrosive atmospheres such as marine structures, fertilisers and scouring plants; where steel is subject to rust and corrosion.

**Q -What Finish Should I Ask for On My Beams?**

A - If your beam is going to be used in a situation where appearance is important such as house interiors, halls etc - appearance Grade A should be specified. This calls for a flush, filled and sanded surface. Appearance Grade B is intended for applications where surface appearance is not critical, and a machine planed finish that may have occasional skips and other minor voids is acceptable.

**Q -Do Splits Along Glue Lines Mean Delamination Has Occurred?**

A - Actual delamination is a failure in the laminating process. While an opening along a glue line may be indicative of delamination, there are other more common causes. Typical checking that occurs in large section timber in response to moisture variation will most naturally occur in Glulam along a glue line where

the natural continuation of the timber fibres is interrupted. This is often mistaken for delamination.

**Q -How Serious Are Checks and Why Do They Appear?**

A - Surface checking and splits occur as timber is allowed to absorb moisture, then dries out in response to environmental changes. Surface fibres are more severely exposed to these changes than the inner core and as a result of the movement in these fibres as they dry and shrink, surface splits may occur. Changes in atmospheric conditions will affect the appearance and disappearance of these checks. The effect of surface checks are superficial only and do not usually have any effect on the structural performance of the Glulam.

**Q - How Can These Checks Be Minimised?**

A - TimberLab Glulam beams are provided with a coating which controls the ingress of moisture into the timber and is done before the beams leave the factory. If the beams are going to be exposed to the weather for a greater period than 8-10 weeks, a further coating should be applied. For coatings to protect beams that are permanently exposed to the elements, consult a coatings specialist.

**Q -What Strength Grades Should Glulam Be Designed To?**

A - The Glulam standard, AS/NZS 1328 allocated to Glulam manufacturers in NZ specifies three grades - GL8, GL10, & GL12. These grades refer to the stiffness (E) of the beam; the most common being GL8. TimberLab is certified to produce GL8, GL10 & GL12.