

Product Warning Re Imported Plywood

July 19, 2006

The Engineered Wood Products Association of Australasia (EWPAA), formerly the Plywood Association of Australasia, has today released a Technical Note titled "Warning Notice re Substituting Imported PS1-95 Industrial Plywood for AS/NZS 2269 Structural Plywood".

The concerns raised are that the imported plywood, although similar in many respects to locally manufactured product, differ in a number of key respects making it unsuitable in a number of applications. In fact, the use of this product as a substitute to AS/NZS 2269 plywood in any structural applications is potentially unsafe and could lead to sudden catastrophic failure.

To comprehend the extent of these concerns it is important to understand that the National Product Standards (Australia and New Zealand) are calibrated against performance requirements of relevant Federal and State regulations such as the Building Code of Australia, Building Code of New Zealand and additional State and Territory based regulations. These requirements can include durability, structural ratings and performance, termite resistance, environmental regulations and the use of banned or restricted substances in the manufacture of such products.

There are three main manufacturing aspects of this imported plywood reasons that have led to the EWPAA raising the above concerns. Firstly, industrial plywood manufactured to the US voluntary product standard PS1-95 has bonding of lower requirements than products to local standards. It is believed Australian conditions demand the permanent "A" bond required by AS/NZS 2269. In fact, good quality "B" bonds are believed capable of meeting the PS1-95 requirements.

Secondly, the two methods of assessing the strength and stiffness properties are quite different. The Australian/New Zealand stress grading system requires extensive testing to be done on a full range of structural design properties prior to the assignment of structural properties. The stress grade applied to each sheet of structural plywood is based upon actual "in-grade" test results of each plywood wood resource. To these results suitable factors of safety and reliability are applied resulting in design properties which can safely be used in the Building Code of Australia, the Timber Framing Code and the Timber Engineering Code.

The US voluntary product standard PS1-95 does not require product testing to assign structural properties, an approach locally found to be unreliable and potentially unsafe due changes in the resource in plantation and regrowth softwoods. Thus use of these imported plywoods is not believed structurally acceptable under the relevant local building codes.

Thirdly, another area of major concern is veneer quality. The major difference between the two systems is in the permissible limits for aggregate defect, in that PS1-95 allowance can be locally excessive. The end result being that in local conditions imported product can be significantly weaker than the assumed properties. EWPAAs testing on imported PS1-95 plywood samples has confirmed this possibility.

The conclusion is that plywood meeting PS1-95 is not a legitimate substitute to the Australian/New Zealand Standard in almost all structural applications regulated by the Building Code of Australia, Building Code of New Zealand, AS 1720 – The Australian Timber Engineering Code, AS 1684 – The Australian Timber Framing Code, excepting a comprehensive and experienced Engineer's Certification for each individual application and structure. The EWPAAs Technical Note fully details these concerns.