

Chinese LVL planks deadly

Imported samples fail Australian tests for bond quality and durability; authorities alert industry

THE Engineered Wood Products Association of Australasia and the CFMEU, Australia's most powerful trade union for workers, have joined forces to alert industry to the dangers of increasing imports of sub-standard Chinese LVL scaffold planks.

This follows EWPAAs tests released this month that show these imported scaffold planks have failed requirements of AS/NZS 4357.0 for bond quality and durability.

"The lives of construction workers are threatened by these sub-standard building materials from China that have failed tests for structural and adhesive performance," EWPAAs general manager Simon Dorries and CFMEU OH&S coordinator Rick Rech said in a joint statement.

EWPAAs is developing a position statement in response to the tests that will be presented at a federal meeting of CFMEU safety officials in Melbourne this month.

In the latest tests, five Chinese LVL scaffold planks were assessed for bond quality and durability requirements of AS/NZS 4357.0 structural LVL – Specifications, and to the strength requirements of AS1577 – 1993 Scaffold Planks; three failed tests for bond quality and durability testing at the EWPAAs national testing laboratory.

Each plank was branded along both edges, in highly legible print, as 'Uni-Plank. To AS1577 WLL 210kg; max. span 1.8m. A bond. Date : 08/08'.

The species was identified as a softwood and the cross-sectional dimensions of the planks were nominally 230 x 40mm. During the weeks prior to testing, the planks were stored in an air-conditioned environment and were not subject to any weather or moisture exposure.

Before strength tests and transporting to the Department of Primary Industries Salisbury research facility in Brisbane, the planks were cut to a length of 2 m and the actual width and thickness measured and recorded.

From each plank, two test pieces 230 mm x 85 mm were extracted. These were subjected to the Type A bond durability test (six-hour steam method) described in AS/NZS 2098.2. The results were assessed and compared with bond quality and durability requirements of AS/NZS 4357.0 – Structural LVL – Specifications.

Given a 100% guarantee the five planks tested would not get wet on occasions, they may have performed satisfactorily structurally," consulting engineer Mick McDowall said.

"However, as it is normal for scaffold planks to be used externally, no such guarantee could be given. Therefore, there is no doubt that at least three of the five planks tested will be potentially unsafe following weather exposure."

Simon Dorries said although the samples were limited and did not represent all Chinese LVL plank production, the rise in failure reports of imported products in Australian and New Zealand was cause for serious concern.

"We need to halt the use of this imported 'cheap and nasty' material that is nothing less than a death trap for workers."

Meanwhile, reports are in from the American APA-Engineered Wood Association of product failures after evaluating industrial laminated veneer lumber scaffold planks from China. The tests compared the adhesive and mechanical properties of the imported planks relative to similar products manufactured in the US and Canada.

“The poor adhesive and low bending performance of the Chinese LVL scaffold planks is not only a serviceability concern, but more importantly a life safety issue,” an APA spokesman said. “These products do not meet certification requirements of the OSHA scaffold plank regulations and ANSI A10.8, Safety Requirements for Scaffolding – American National Standard for Construction and Demolition Operations.”

Results from samples tested in the American APA study show that the bending stiffness of the imported Chinese LVL scaffold plank products was 20% below the value labelled on the product. Similarly, the bending strength was about 30% below comparable 2.2E LVL scaffold planks manufactured in the US.

The data also indicates that glue-bonded performance was inconsistent and the bonded durability did not meet the PS1 requirements.

“It is clear from the product labelling, that the tested scaffold plank products from China are not certified by an independent agency recognised in the US,” the APA official added.



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