Australian/New Zealand Standard™

Methods of test for veneer and plywood

Method 2: Bond quality of plywood (chisel test)

1 SCOPE

This Standard sets out the method for determining the quality of bond in plywood.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS
4491 Timber—Glossary of terms in timber-related Standards

ISO 9000 Quality management systems—Fundamentals and vocabulary

3 DEFINITIONS

For the purpose of this Standard the definitions in AS/NZS 4491 and AS/NZS ISO 9000 apply.

4 PRINCIPLE

In a well-made glueline, the separation of plies occurs, predominantly, through breaking of the wood itself and not by separation of the plies along the glueline. A satisfactory glueline will therefore include a substantial amount of adhering wood fibre when the plies are forcibly separated. Consequently, the proportion of fractured wood adhering to both plies will provide a measure of the quality of the bond.

5 APPARATUS

5.1 All tests

The following apparatus is required for all tests:

(a) Chisel (knife) as shown in Figure 1 or Figure 2.

NOTE: The percussion chisel shown in Figure 1 requires a percussion mechanism to assist in forcing the chisel along the glueline.

(b) A bench with a timber backstop.

(c) A light source fitted with a minimum clear incandescent 150 W lamp or a 15 W fluorescent tube.

(d) A well-ventilated thermal oven with wire mesh shelves or other open material that allows free internal circulation of air, and capable of maintaining a temperature of above 100°C without degrading the specimen;

OR

A suitable microwave oven equipped with a cooling fan and cavity air exhaust.

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