Australian Standard
METHODS OF TESTING TIMBER

AS 1080.2.3
DETERMINATION OF SLOPE OF GRAIN BY SPLINTERING

FOREWORD

Where predictable strength of timber is the primary consideration, sloping grain can be a serious defect. It is often difficult to detect by visual examination of the surface. The importance of the defect will be appreciated where it is realized that there is a reduction in the strength of beams, e.g. approximately 20 percent for a slope of 1 in 16, 30 percent for a slope of 1 in 12 and 50 percent for a slope of 1 in 8.

This method for determination of slope of grain is suitable for use on timber articles with sawn or dressed surfaces. It does, however, result in some damage to the dressed surfaces.

It is stressed that this test method determines only whether or not a piece of timber has slope of grain and its magnitude. It does not set down any criteria for grade specifications.

This standard is one of a number dealing with determination of slope of grain. During the preparation of this standard cognizance was taken of BS 4047, Grading Rules for Sawn Home Grown Hardwood. Acknowledgement is made of the assistance given by that standard.

This standard makes reference to the following standard:

AS O1 Glossary of Terms Used in Timber Standards.

METHOD

1 SCOPE. This standard sets out the method for determining the slope of grain in timber articles that are either regular or irregular in plan or section by the removal of splinters from the surface.

NOTES:

1. This method causes slight damage to the surface.
2. The method is suitable for sawn surfaces.
3. Unless long splinters are taken, the accuracy of the method is inferior to that of the scribe method and the surface checks method described in AS 1080.2.1 and AS 1080.2.2 respectively.

2 DEFINITIONS. For the purpose of this standard, the definitions given in AS O1 apply.

3 PRINCIPLE. The surface of the test piece is probed with a pointed blade and splinters are prized from the surface. The direction of splintering is observed and marked, and the slope of grain is then determined geometrically.

4 APPARATUS. The following apparatus is required:

(a) A pointed blade.
(b) A graduated straightedge.
(c) A try-square.

5 PROCEDURE. The procedure shall be as follows:

(a) Establish and mark a base line on the test piece.

If the test piece has a plane surface bounded by a straight edge then that straight edge shall be the base line.

If the test piece has no straight edge, the axis of symmetry or the axis of action shall be the base line.