

Australian/New Zealand Standard™

Methods of test for pulp and paper

**Method 431rp: Taber bending
resistance of paper and paperboard**



AS/NZS 1301.431rp:2006

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee PK-019, Methods of Test for Pulp and Paper. It was approved on behalf of the Council of Standards Australia on 7 September 2006 and on behalf of the Council of Standards New Zealand on 20 October 2006.
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The following are represented on Committee PK-019:

Australian Plantation Products and Paper Industry Council (A3P)

Appita

CSIRO Forestry and Forest Products

Ensis Papro, SCION

National Association of Forest Industries

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Foreword

This standard was prepared by Joint Technical Committee PK-019, Methods of Test for Pulp and Paper, as part of AS/NZS 1301, *Methods of test for pulp and paper*.

This edition cancels and replaces AS 1301.431rp—1989.

This Standard conforms to ISO 2493, but the ISO Standard includes instruments other than the Taber instrument. The ISO Standard requires the deflection angle to be accurate to within 0.1°. In normal operation it is not possible to ensure that this accuracy is achieved with the Taber instrument, but special effort must be made to ensure that the angle is as close as possible to 15°.

Similar Standards are:

TAPPI T489-om04

BS 3748:1992

Bending stiffness can be defined mathematically as:

$$\frac{El}{b}$$

where

E = modulus of elasticity (Young's modulus)

I = second moment of area (moment of inertia) of the cross-sectional area, about an axis through the centre of that area, in its plane and perpendicular to the direction of bending

b = width of the cross-sectional area

If it could be shown that the deflection of the test piece remained within the elastic limits, the bending stiffness may be calculated from:

$$S = \frac{19.1FL^2}{\theta b}$$

where

S = bending stiffness, in mN.m

F = bending force, in N

L = bending length, in mm

b = test piece width, in mm

θ = angular deflection

The term 'normative' has been used in this Standard to define the application of the annex to which it applies. A 'normative' annex is an integral part of a Standard.

NOTES