

**AMENDMENT NO. 4    AUGUST 2005**  
**TO**  
**IS 303 : 1989 PLYWOOD FOR GENERAL PURPOSES —**  
**SPECIFICATION**

*( Third Revision )*

*( Page 3, clause 11.1, line 3 ) — Substitute '11.2, 11.3 and 11.4' for '11.2 and 11.3'.*

*( Page 3, clause 11.2 ) — Substitute the following for the existing:*

**'11.2 Glue Adhesion**

Glue adhesion shall be deemed satisfactory if the plywood complies with the requirements specified in 11.2.1 and 11.2.2.

**11.2.1 Water Resistance Test**

Plywood for general purposes of either grade, when tested in the manner specified below shall satisfy minimum pass standard for test for adhesion of plies as given in IS 1734 (Part 5).

**11.2.1.1** Three test specimens of size 250 mm × 100 mm shall be prepared from each of the boards selected under 10.1 and shall be tested for respective grade as described below.

**BWR Grade**

Specimens shall be submerged in boiling water for 8 h and dried for 16 h at a temperature of  $65 \pm 2^{\circ}\text{C}$  and then followed by two more cycles of soaking and drying under the same conditions described above. The specimens shall then be tested in accordance with the method given in IS 1734 (Part 5).

**MR Grade**

Specimens shall be submerged in water at a temperature of  $60 \pm 2^{\circ}\text{C}$  for 3 h and dried for 8 h at a temperature of  $65 \pm 2^{\circ}\text{C}$  and then followed by two more cycles of soaking and drying under the same conditions described above. The specimens shall then be tested in accordance with the method given in IS 1734 (Part 5).

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**11.2.2 Mycological Test**

Plywood of MR Grade when tested in accordance with the method given in IS 1734 ( Part 7 ) shall satisfy minimum pass condition for test for adhesion of plies as given in IS 1784 ( Part 5 ).

( Page 4, Table 4 ) — Delete.

( Page 4, clause 11.3 ) — Insert the following new clause after 11.3 and renumber the subsequent clauses:

**11.4 Static Bending Strength** — Plywood when tested in accordance with IS 1734 ( Part 11 ) shall have an average and a minimum individual Modulus of Elasticity and Modulus of Rupture not less than the values specified in Table 4 against each grade.

**Table 4 Average and Minimum Individual Values of Modulus of Elasticity (MOE) and Modulus of Rupture (MOR)**

Sl No.	Grade	MOE (N/mm <sup>2</sup> )		MOR (N/mm <sup>2</sup> )	
		Average	Min. Ind.	Average	Min. Ind.
(1)	(2)	(3)	(4)	(5)	(6)
i)	BWR Grade				
	Along (direction parallel to the grain direction of the face veneer)	5 000	4 500	40	36
	Across (direction perpendicular to the grain direction of the face veneer)	2 500	2 200	20	18
ii)	MR Grade				
	Along (direction parallel to the grain direction of the face veneer)	4 000	3 600	30	27
	Across (direction perpendicular to the grain direction of the face veneer)	2 000	1 800	15	13

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[ Page 4, clause 11.4 ( renumbered 11.5 ), lines 1 and 2 ] — Substitute '11.3 and 11.4' for '11.2 and 11.3'.

( Page 4, clause 11.5 ( renumbered 11.6), line 3 ) -- Substitute '11.2, 11.3 and 11.4' for '11.2 and 11.3'.

( Page 4, Annex A ) — Delete references of 'IS 1734 (Part 4) : 1983' and 'IS 1734 ( Part 6 ) : 1983' and add reference to the following, at appropriate places:

'IS 1734 ( Part 5 ) : 1983	Methods of test for plywood : Part 5 Test for adhesion of plies (second revision)
IS 1734 ( Part 11 ) : 1983	Methods of tests for plywood : Part 11 Determination of static bending strength (second revision)

( Page 7, Annex D, SI No. 6 ) — Substitute the following for the existing, delete SI Nos. 7 & 8 and renumber SI No. 9 as SI No. 7:

Glue Adhesion	a) Water Resistance test as determined by clause 11.2.1 of IS 303	-----
	b) Mycological Test as determined by clause 11.2.2 of IS 303	-----

( Page 7, Annex D ) — Insert the following after the renumbered SI No. 7 and renumber the subsequent SI Nos. accordingly:

8(a)	Modulus of Elasticity as determined by method given in IS 1734 ( Part 11 ) : 1983	Average: ----- Min. Ind. -----
8(b)	Modulus of Rupture as determined by method given in IS 1734 ( Part 11 ) : 1983	Average: ----- Min. Ind. -----

( CED 20 )

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Printed at Prabhat Offset Press, New Delhi-2