



CORPORATE PURCHASING SPECIFICATION

AA 512 01

Rev. No. 02

PREFACE SHEET

SEASONED TIMBER FOR PATTERN MAKING, TOOLING. ETC.

FOR INTERNAL USE ONLY
 REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

Equivalent / Comparable Standards:

1. INDIAN :

Suggested / Probable Suppliers and Grades:

User Plants & Replaced Plant Specifications / References:

1) BHOPAL	:	-
2) HYDERABAD	:	-
3) HEEP, HARDWAR	:	-

Revisions :
 C1.8.4 of 8th MOM of WG-T&PM

APPROVED :
 INTERPLANT MATERIAL RATIONALISATION
 COMMITTEE-WG-T&PM

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Prepared
 HARIDWAR

Issued
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Dt. of 1st Issue
 March' 80

Dt: Dec. 2008

Dt :

Year:



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SEASONED TIMBER FOR PATTERN MAKING. TOOLING. ETC.

1. GENERAL:

This specification governs the quality of Seasoned Timber For Pattern Making, Tooling, etc. supplied in the form of planks, battens, beams and sleepers.

2. APPLICATION:

Used for pattern making, tooling, formers, etc.

3. COMPLIANCE WITH NATIONAL STANDARDS:

There is no national standard covering this type of material. However, assistance has been driven from the following national standards.

IS: 190 : Coniferous Sawn Timber
(Baulks And Scantlings)

IS: 1326 : Non-Coniferous Sawn Timber
(Baulks And Scantlings)

IS: 5966 : Non-Coniferous Timber In Converted
Form For General Purposes.

4. TERMINOLOGY:

For the purpose of this specification, the definitions given in IS: 707 (Glossary of Terms Applicable to Timber Technology and Utilization) shall apply except for the beam which is defined as below:

Beam is defined as converted Limber whose cross-sectional dimensions exceed 50 mm in both directions.

5. SPECIES:

Shall be stated on the order.

Standard species are:

Trade Name

Deodar
Sheesham
Teak

Botanical Name

Cedrus deodara

Tectona grandis

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APPROVED :
**INTERPLANT MATERIAL RATIONALISATION
COMMITTEE-MRC (E)**

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6. DIMENSIONS AND TOLERANCES:

6.1 Sizes:

Width, thickness and length of timber shall be clearly stated on our order.

6.2 Tolerances:

6.2.1 Width:

<u>Width, mm</u>	<u>Tolerance, mm</u>
50	- 250 $\pm$ 3

6.2.2 Thickness:

<u>Thickness, mm</u>	<u>Tolerance, mm</u>
20	- 250 $\pm$ 3
	- 1

6.2.3 Length:

Standard Length : 1 to 4 metres in multiples of 0.5 metre.

Tolerance : $\pm$ 2% or $\pm$ 25 mm whichever is less,

NOTE:

1. Measurements:

- 1.1 When nominal sizes are ordered, length, width and thickness shall be measured on the basis of accepted sizes. Plus tolerances shall not be added while computing the volume.
- 1.2 The measurements of length, width, thickness and computation of the volume shall be made as follows:
 - a) The length shall be measured in metres in midline of a piece. The fractions of a metre shall be rounded off to the nearest lower 10 mm.
 - b) The width shall be measured at the narrowest place in millimeters and shall be rounded off to the nearest lower one millimeter.
 - c) The thickness shall be measured at the narrowest place in millimeters and shall be rounded off to the nearest lower one mm.
 - d) The volume shall be computed in cubic metres correct to three decimals on the basis of accepted sizes.

2. Single sampling plan based on IS: 2500 (Parts 182) shall be followed:

**7. SEASONING AND MOISTURE CONTENT:**

Unless otherwise specified, the timber shall be seasoned to a moisture content of 8 to 12 percent at the time of inspection, within a depth of 15 mm from the surface excluding a length of 300 mm from each end.

The moisture content shall be determined in accordance with Appendix - A of IS: 287.

NOTE:

However, BHEL Units having their own seasoning plants **may** procure timber with a moisture content of 20 to 25 percent which may be specified on the order and seasoning as required may be carried out in BHEL units.

8. FREEDOM FROM DEFECTS:

Timber shall be free from the following defects:

Brashness, splits across the grain shakes, cup, bow, wane, spring, twist, insect attack, any kind of decay (rot), any sign of infestation, open centre heart, centre heart on planks and any other defect.

Defects to the extent specified below are permissible. These defects shall be measured in accordance with IS: 3364 (Part 1G2).

8.1 Centre Heart:

Shall be permissible on planks above 75 mm thick only and on sleepers when it is not farther than 25 mm from the nearest edge and is sound and boxed.

8.2 End Splits:

The longest end split at each end shall be measured and the lengths added together. The total length of these shall not exceed 60 mm per metre run of the piece.

8.3 Live Knots Upto 25 mm diameter:

A maximum of 3 knots/metre length are permissible. However, the knots shall not be so grouped or located as to affect the strength of the piece. Live knots above 25 mm diameter are not permissible.

8.4 Dead Knots Upto 10 mm diameter:

One knot/metre length shall be permissible provided the knot does not move across thickness with a moderate pressure.

Dead knots above 10 mm diameter are not permissible.

8.5 Surface Cracks:-

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Surface cracks with a maximum depth of 5 mm are permissible. A continuous crack of any depth, all along the length, is not permissible.

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8.6 Sap Wood:
Shall be permissible upto a maximum of 10 percent of the cross- sectional area but not in more than 10 percent of the tota] supply.

9. END COATING:
Timber shall be coated after inspection with any of the following effective compositions, upto a distance of 80 mm from each end.

9.1 Thick Coal tar or bituminous paint.

9.2 Resin and lamp black (10:1), melted, mixed and applied hot.

9.3 Hardened gloss oil.

9.4 Paraffin Wax.

9.5 Molasses and lime (3:1)

9.6 Geru/Yellow Clay

10 END STRAPPING:
As and when required, sleepers shall be strapped with steel clamps to prevent end splitting.

11. INSPECTION:
100% inspection shall be done.

12. TEST CERTIFICATES:
Unless otherwise specified, three copies of test certificates shall be supplied giving the following information.

BHEL SPEC. NO	: AA 512 01 Rev -02
BHEL Order No	:
Supplier's Name	:
Type & Specie	:
Treatment, if any	:
Moisture content	:
Quantity supplied	:

13. MARKING:
The timber shall be marked/painted in order to identify the source of supply in accordance with our instructions.
The Timber shall be hammer sealed as a token of- inspection by the Inspecting Authority.