

**Permissible limits for General Structural Temperate Hardwood (THA and THB) visual strength grades**

Characteristic	Grade	
	Heavy Structural (THA)	Heavy Structural (THB)
<b>Knots</b>	Not greater than 0.2 of the thickness or width to which it relates.	Not greater than 0.75 of the thickness or width to which it relates.
<b>Longitudinal separation of knots</b>	Knots accumulative if longitudinal separation is less than twice the width or 300mm (whichever is the lesser) or when the grain has not full recovered.	
<b>Slope of grain</b>	Not greater than 1 in 12. Within 500mm of ends not greater than 1 in 6.	Not greater than 1 in 4.
<b>Fissures -</b>		
<b>Through the thickness</b>	Only permitted at ends with length not greater than the width of the piece.	
<b>Not through the thickness</b>	Not greater than 1m or ¼ the length of the piece.	
<b>Wane</b>	Full edge and face dimensions may be reduced by up to one third of the dimensions of the piece. Length of wane is unlimited.	
<b>Distortion</b>	<b>Bow</b>	Not greater than 10mm over a length of 2m.
	<b>Spring</b>	Not greater than 8mm over a length of 2m.
	<b>Twist</b>	Not greater than 1mm per 25mm width over a length of 2m.
	<b>Cup</b>	Unlimited.
<b>Bark pockets</b>	Within 500mm of the ends, not greater than the width of the piece. Elsewhere not greater than 1.5 times the width or 0.2 times the length of the piece, whichever is the lesser.	
<b>Biological damage and other defects</b>	Worm holes and pin holes are permitted provided they conform to the requirements in 4.8 of BS 5756: 2007. No active infestation is permitted. No decay is permitted other than in unsound knots. Stain free from decay is permitted.	
<b>NOTE: 1:</b> The length of fissures and the amount of distortion are linked with moisture content, therefore, the limits given can only be applicable at the time of grading.		