

WOOD DEFECT CATEGORIES

MOHD ANIZ ANIZAR BIN MOHD SUHAILI

DIPLOMA IN WOOD INDUSTRY
UNIVERSITI TEKNOLOGI MARA

2007

ACKNOWLEDGEMENT

Alhamdullillah, I am highly gratitude to Allah swt, for the permission given to me so my final projects paper under the title Wood Defect Categories had been successfully submitted as planned. Added to my gratitude and thanks is my advisor, Prof. Madya Abdul Jalil bin Ahmad for becoming my advisor in this project paper and giving the support and advice from the beginning until the end of my research. Along the way without his instruction or order, I could not complete my project paper. The lesson that had been learned through theory and practical mainly to the subject of Wood Composite 1 and Wood Process Workshop is very helpful in this write-up.

Then to all staff at Al-Bukhari Library, UiTM Jengka Pahang, for the permission, for loan of books and giving help for information searched. Also not forgetting to my family for their support and my entire friends, and lectures because of their help and support. May Allah bless you all.

TABLE OF CONTENT

APPROVAL SHEETS.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENT.....	iv
LIST OF TABLE.....	vi
LIST OF FIGURES.....	vi
ABSTRACT.....	viii
ABSTRAK.....	ix

CHAPTER Page

1	1.0 Introduction.....	1
	1.1 Objective.....	2
2	2.0 DEFECT CATEGORIES.....	3
	2.1 Natural Defects.....	4
	2.1.2 Knots.....	4
	2.1.3 Compression wood.....	7
	2.1.4 Cross Grain.....	8
	2.1.5 Variation in log form.....	9
	2.1.6 Shake.....	10
	2.2 Rupture of wood tissue	11
	2.2.1 Surface checks.....	11
	2.2.2 End checks and splits.....	14
	2.2.3 Collapse.....	15
	2.2.4 H o n e y c o m b.....	16
	2.2.5 Ring failure.....	19
	2.2.6 Boxed-heart splits.....	19
	2.2.7 Checked knots	20

	2.2.8 Loose knots	21
	2.3 Warp	22
	2.3.1 Cup.....	23
	2.3.2 Bow.....	23
	2.3.3 Crook.....	24
	2.3.4 Twist.....	25
	2.3.5 Diamonding.....	25
	2.4 Uneven moisture content	26
	2.4.1 Board rejects.....	26
	2.4.2 Water pockets.....	27
	2.5 Discoloration	28
	2.5.1 Sapwood discolorations.....	29
	2.5.2 Heartwood discolorations.....	29
	2.5.3 Discolorations in wood containing wet wood.....	33
	2.5.4 Metallic and alkaline stains.....	35
3	3.0 RELATIONSHIP BETWEEN DRYING DEFECTS AND MACHINING	36
4	4.0 PREVENTION OF WOOD DEFECTS	43
	4.1 Collapse.....	43
	4.2 Warp and twist.....	44
	4.3 End checking.....	45
	4.4 Sapstain.....	46
	4.5 Chemical stain.....	47
	4.6 Sticker stain.....	48
	4.7 Blue stain.....	49
	4.8 Discoloration.....	49
	4.9 Decay.....	50
5	5.0 Discussion.....	52
	5.1 Conclusion.....	52
	REFERENCES	53
APPENDIX	COMMON DEFECTS IN WOOD	55
	VITA	57

WOOD DEFECTS CATEGORIES

By

MOHD ANIZ ANIZAR BIN MOHD SUHAILI

APRIL 2007

ABSTRACT

Wood is and will still become primary source in their human daily life. In past years, wood is only used as firewood, as an arms, make the material built and sources of food for certain animal. Now, wood give the main contribution in the many industries that utilize wood resources. As we know, the good wood can give the best quality product, which we produced. Sometimes, the wood defects can give big problem to the all wood product producer because wood defects sometimes can be prevented and sometime not. The type of wood defects that we face with is natural wood defects, seasoning wood defects and wood defects during machining. So, the best way to get the quality wood is to use special drying schedule and to person who handle the machine should be more careful. It is very important to get the high value of wood in the market. It is because, there are difficult to get the good log in the short time.