MERANTI TIMBER: THEIR PROPERTIES, USAGE AND TREATMENT

NOR HEANT BINT! AZAHAR

DIFLOMA IN WOOD INDUSTRY UNIVERSITI TERMOLOGI MARA

APRIL 2010

ACKNOWLEDGMENT

Alhamdulillah, with a lot of time that has been given, I kindly complete my final report. My greatest gratitude to Allah Almighty for His Blessing because I am able to still run my life as usual.

I would like to take this opportunity to say a special thanks to everyone especially to may lecturer, Prof.Dr Jamaluddin bin Kassim and my advisor for this subject, Prof.Madya Abdul Jalil bin Ahmad. They give all their support, suggestion, comment, advice and spend more time to briefly lecture me about this final project. All the kindness you've showed, I would remember for life.

Also special thanks to all DIP lectures and staffs for their priceless help in preparing and information gave in this research.

Lastly, thanks for someone very special in my heart who always gives supports and advices, my family especially my mother and father. I love you so much.

Thanks also for my friends who were involved direct and indirectly. Your support and advices through out completing this report successfully.

I really appreciate all your kindness. May Allah is bless you all always.

Thank you.

TABLE OF CONTENT

Approval Sheet		ii
Dedication		iii
Acknowledgment		iv
List Of Figure		vii
List Of Plate		vii
List Of Table		vii
Abstract		viii
Absrak		X
Tiosium		14
CHAPTER 1		
		1
1.1 General		1-3
		4
1.2 Objectives		
CHAPTER 2		
	Meranti Group	5
2.1 General		5
2.2 Background Information		5
2.2.1 Wood Characteristic		5
2.2.2 Wood Characteristic		5
2.2.3 Timber Classification.		5
2.2.4 Drying & Relative Movement.		6
2.2.5 Durability		
		7
2.2.6 Strength Properties.		7
2.2.7 Usage		7
2.3. Meranti Bakau		8
2.3.1 General		8
2.3.2 Tree Type& Distribution.		8
2.3.3 Wood Characteristic.		8
	perties	9
	perties	10
2.3.6 Usage		10
2.4 White Meranti		10
2.4.1 General		11
2.4.2 Tree Type& Distribution		11
2.4.3 Wood Characteristic		11
2.4.4 Physical Properties		12
2.4.5 Strength Properties		13
2.4.6 Usage		13
2.5 Yellow Meranti		14
2.5.1 General		
2.5.2 Tree Type& Distribution.		
2.5.3 Wood Characteristic		
2.5.4 Physical Properties.		

ABSTRACT

MERANTI TIMBERS THEIR PROPERTIES, USAGE AND TREATMENT

NOR IMANI BINTI AZAHAR

JULY 2010

Malaysia is covered with many type of green forest. They are Diptrocarpus, Coastal Swamp and Mangrove Forest. They all can produce much type of commercial timbers, herbs and flora and fauna which are very useful and benefitial to human and also to environment. Here, I would like to explain briefly about the Meranti timbers. Actually, Meranti timber consists of five groups. One of them is Meranti Bakau which can found at the coastal swamp forest. The characteristic of the Maranti Bakau timbers is similar which another type group of Meranti at the Dipterocarpus forest.

At the Diptrocarpus forest we can find white, yellow, dark red and light dark red Meranti groups. They have similarly characteristic but can be differentiated through their colour and density. Generally, Meranti timber is classed in light hardwood which are relatively must be treated them to increase their strength and prevent from fungi and termites attack. Here, preservative can be divided into two categorized. They are oil and oil-borne preservative and water-borne preservative. Every of them have their own characteristic, advantages and disadvantages.

The treatment also is divided into two protections. They are protection by chemical and protection without chemical. Under protection without chemical, the users have no need to use preservative. Just protect the timber manually such as controlling timber's moisture content and so on. The second type is by applying with the chemical. The users can choose either of the two types of treatment, pressure treatment and non-pressure treatment. Non-pressure treatment, the users can apply preservation by brushing, or spraying, deluding and other methods. Pressure treatment is very popular in Malaysia and widely used by the wood treatment factories because this method can save our time and budget in timber production.

More important, the preservative is very dangerous for human especially who involve direct and indirectly in this treatment process. There are 3 ways these chemicals can enter the body through inhaling, swallowing and contact with the skin. However, some ways can be applied and followed by the human such as using and wearing the safety equipments. The example safety equipment such as safety suit & apron for body, PVC gloves for hands, shoes or boots for feet. Besides that, to safe our eyes and nose and mouth, we also can use goggles, light respirator and mouth mask respectively.