

STRENGTH GROUPING OF TIMBERS (SG) (MS 544 : PART2 : 2001)

NATURALLY DURABLE

SPECIES	GROUP						
	SG1	SG2	SG3	SG4	SG5	SG6	SG7
	BALAU	BELIAN	BEKAK	GIAM	TEAK		
	BITIS	MATA ULAT	DELEK	MALABERA	TEMBUSU		
	CHENGAL	KEKATONG	KERANJI	MERBAU			
	PENAGA			RESAK			

TREATMENT REQUIRED

SPECIES	GROUP						
	SG1	SG2	SG3	SG4	SG5	SG6	SG7
		DEDARU	BALAU, RED	BERANGAN	ALAN BUNGA	BAYUR	ARA
		KEMPAS	KELAT	DEDALI	BABAI / GAPIS	DAMAR MINYAK	BATAI
		MEMBATU	KEMBUNG SEMANGKO	DERUM	BALEK ANGIN BOPENG	DURIAN	GERONGGANG
		MERTAS	KULIM	KAPUR	BINTANGOR	JELUTONG	LARAN / KELEMPAYAN
			PAUH KIJANG	KASAI	BRAZIL NUT	JONGKONG	PELAJAU / PELONG
			PENYAU	KERUNTUM	GERUTU	KASAH	PULAI
			PERAH	MEMPENING	KEDONDONG	MACHANG	SESENDOK
			PETALING	MERANSI	KELEDANG	MEDANG	TERENTANG
			RANGGU	MERANTI BAKAU	KERUING	MELANTAI / KAWANG	
			RU / AGOHO	MERAWAN	KETAPANG	MERANTI, LIGHT RED	
			SURIAN BATU	MERPAUH	KUNGKUR	MERANTI, YELLOW	
			TUALANG	NYALIN / MINYAK BEROK	RUBBERWOOD / MALAYSIA OAK	MERSAWA	
				PERUPOK	MELUNAK	SENGKURAT / JENTIRI	
				PUNAH	MEMPISANG	TERAP	
				RENGAS	MENGKULANG		
				SIMPOH	MERANTI, DARK RED		
					MERANTI, WHITE		
					NYATOH		
					PENARAHAN		
					PETAI		
					RAMIN		
					SENGKUANG		
					SEPETIR		
					TETEBU / KAYU KUNDUR		

NOTES : 1. For naturally durable timbers, sapwood should be excluded. If sapwood is included, perservative treatment is necessary. (Source-MS 360:1986)

2. For timber requiring treatment, they should be amenable to preservative treatment.

STRENGTH GROUP	COMPRESSIVE STRENGTH PARALLEL TO GRAIN (N/mm ²)
A	Greater than 55.2 ; Extremely Strongly
B	41.4 - 55.2 ; Very Strong
C	27.6 - 41.4 ; Moderately Strong
D	Less than 27.6 ; Weakest

STRENGTH GROUP	BENDING (MOR)	TENSION PARALLEL TO GRAIN	COMPRESSION		MODULUS OF ELASTICITY (MOE)
			PARALLEL TO GRAIN	PERPENDICULAR TO GRAIN	
SG 1	26.5	15.9	22.5	3.74	18800
SG 2	18.3	11	18.5	3.05	16800
SG 3	15.9	9.5	14.1	2.09	14300
SG 4	13.2	7.9	11.1	1.65	11000
SG 5	9.5	5.7	8.5	1.14	9100
SG 6	8.9	5.3	6.9	1.02	7300
SG 7	6.5	3.9	5.4	0.62	6600

* The grade stress is adopted from dry standard structural grade in MS 544 Part 2 (2001)