ITTO

LESSER USED SPECIES

GERUNGGANG (CRATOXYLUM ARBORESCENS)

TRADE NAME

Gerunggang

SCIENTIFIC NAME

Cratoxylum arborescens (Vahl) Blume

FAMILY

Guttiferae

COMMON NAMES

Geruggang; Geronggang gajah; Geronggang; Selunus (Indonesia); Gerunggang (France); Gerunggang (Spain); Gerunggang (Netherlands); Gerunggang (United States of America); Gerunggang (United Kingdom); Serungan (Sabah); Mapat (Indonesia); Mulu (Indonesia); Gonggang (Malaysia); Gerunggang (Sarawak); Gerunggang (Germany)

SCIENTIFIC NAME SYNONYMS

Cratoxylum cuneatum Miq.; Cratoxylum arborescens (Vahl) Blume var miquelii King

DESCRIPTION OF THE TREE

BOTANICAL DESCRIPTION

It is a medium-sized to large, evergreen tree up to 50 m tall. The bole is up to 65 cm in diameter.

NATURAL HABITAT

This species occurs scattered, although sometimes it is dominant and gregarious in coastal swamp forests, up to 900 m of altitude.

NATURAL DISTRIBUTION

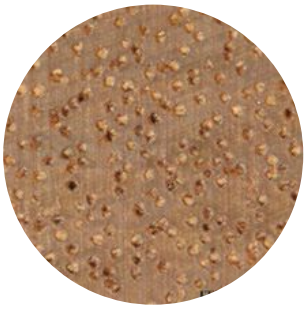
It is locally common in Malaysia and Indonesia, mainly in coastal dipterocarp swamp forests.

WOOD IDENTIFICATION

ANATOMIC DESCRIPTION OF WOOD

Wood diffuse porous. Colored deposits in heartwood vessels. Tyloses common. Vascular/vasicentric tracheides present. Simple perforation plates. Vessel-ray pits similar to intervessel pits in size and shape. Intervessel pits small, 7 micras or less. Paratracheal axial parenchyma scanty and/or vasicentric. Axial parenchyma aliform. Axial parenchyma in narrow bands on lines up to 3 cells wide. Homogeneous rays and/or sub-homogeneous rays (all ray cells procumbent). Body ray cells procumbent with mostly 2 to 4 rows of upright and/or square marginal cells (Kribs-II). Body ray cells procumbent with one row of upright and/or square marginal cells (Kr

Wood Macro Photo Tangential Plane



Wood Micro Photo Of Transversal Section

AVAILABILITY

CITES STATUS

Unrestricted

GENERAL WOOD DESCRIPTION

ODOR

No odor or taste is noted.

COLOR

The sapwood is pink to whitish. The heartwood ranges from dark pink to light brick-red, darkening.

COLOR INDEX (1=BLACK, 7=LIGHT YELLOW,WHITE)

5

GRAIN

It is predominantly straight.

TEXTURE

Its texture is medium to coarse, its vessels have dark deposits.

LUSTER

It is lustrous.

NATURAL DURABILITY

It is perishable and vulnerable to bark beetles and ship-timber beetles.

NATURAL DURABILITY INDEX (1= VERY HIGH DURABILITY, 7=VEY LOW DURABILITY)

5

SILICA CONTENT

Silica Content: Silica content is negligible. Amounts over 0.05% may affect wood processing. Silica Value: 0.05

RESISTANCE TO IMPREGNATION

Stock absorbs preservatives readily.

WOOD PHYSICAL PROPERTIES

BASIC DENSITY OR SPECIFIC GRAVITY (O.D. WEIGHT/VOL. GREEN) (G/CM^3)

0.46

AIR-DRY DENSITY (WEIGHT AND VOLUME AT 12%MC) (G/CM^3)

0.50

TOTAL SHRINKAGE TANGENTIAL (SATURATED TO 0%MC) (%)

6.0

TOTAL SHRINKAGE RADIAL (SATURATED TO 0%MC) (%)

3.3

DRYING DEFECTS

Ease of Drying: Air seasoning is reported to be good but rather slow. Drying Defects: When the timber is dried very slowly, degrade is almost negligible.

RECOMMENDED DRY KILN SCHEDULE

JP-36; UK-E; US-T6-D2

DIMENSIONAL STABILITY RATIO (TOTAL TANGENTIAL SHRINKAGE %/TOTAL RADIAL SHRINKAGE %)

1.8

ACTUAL DRY KILN PROGRAM

http://itto.git.grav-dev.com/wp-content/uploads/2015/09/KD_Japanese_ENG.pdf
http://itto.git.grav-dev.com/wp-content/uploads/2015/08/KD_British_ENG.pdf
http://itto.git.grav-dev.com/wp-content/uploads/2015/08/KD_USA_ENG.pdf

WOOD CHEMICAL PROPERTIES

WOOD MECHANICAL PROPERTIES

BENDING STRENGTH (MOR),12%MC (KGF/CM^2)

502

STIFFNESS (MOE) 12%MC (KGF/CM^2)

80713

COMPRESSION PARALLEL TO FIBER 12%MC (KGF/CM^2)

259

SHEAR STRENGTH RADIAL 12%MC (KGF/CM^2)

63

JANKA HARDNESS (SIDE) 12%MC (KGF)

178

JANKA HARDNESS (END GRAIN) 12%MC (KGF)

245

WORKABILITY

SAWING

This species is easy to saw.

ROTARY VENEER CUTTING

It can be peeled at a 90 degrees peeling angle to produce good veneer, without pretreatment.

SLICED VENEER

It can be peeled at a 90 degrees peeling angle to produce good veneer, without pretreatment.

BLUNTING EFFECT

It has a moderate blunting effect on the cutting tools.

MACHINING

Machining of this species is reported to be easy.

PLANING

It can be planed to a smooth surface, except on radial surfaces of green wood.

TURNING

30

BORING

Boring operations are rather easy.

MORTISING

Mortising operations are rather difficult.

NAILING

It is easy to nail.

GLUING

This species is easy to glue.

SANDING

Sanding of this wood is difficult.

FINISHING

After some filling it has a good finishing.

POLISHING

Polishing of this species is reportedly easy.

REFERENCED USES

END USES SUMMARY

HOUSING GENERAL, boards, flooring, panelling, FURNITURE AND CABINETS, PLYWOOD AND VENEER, TURNING, cutlery, PACKING, NAVAL CONSTRUCTION, boats, OTHER AND MUSICAL INSTRUMENTS, handicrafts

GENERAL HOUSING

10 - Silica in Timbers

BOARDS

13 - Dry kiln schedules for commercial woods. Temperate and tropical. Section III. Latin American (Mexico, Central, and South America) Woods–Conventional Temperatures

FLOORING

14 - Handbook of Hardwoods

PANELING

18 - W3TROPICOS Missouri Botanical Garden

FURNITURE CABINETS

21 - Tropical timbers of the world. Part III-Southeast Asian and Oceanian Species.

PANELS, VENEERS

25 - Directory of Timber Trade Malaysia

TURNING

30 - Embassy of Honduras in Japan

KNIFE HANDLES

33 - Embassy of Gabon in Japan

PACKING

45 - Recopilación y Análisis de Estudios Tecnológicos de Maderas Peruanas

SHIPBUILDING

55 - Tropical Timber Atlas of Latin America

BOATS

56 - Manual de Identificación de Especies Forestales de la Subregión Andina.

HANDCRAFT

66 - Maderas latinoamericanas. VII. Caracteristicas anatomicas. propiedades fisicomecanicas, de secado, y tratabilidad de la madera juvenil de Cordia alliodora (Ruiz & Pav. Oken.)