WHITE SERAYA, GERUTU

Botanical name: *Parashorea* spp., family: DIPTEROCARPACEAE

Other important species: White Seraya: e.g. *P. macrophylla, P. malaanonan, P. tomentella;* Gerutu: e.g. *P. aptera, P. densiflora, P. lucida, P. parviflora, P. smythiesii, P. stellate*

Distribution: Burma, Thailand, Laos, Vietnam, Cambodia, Indo-Malaysia

Other important trade names: White Seraya: Weißes seraya, w. lauan (D); urat mata (MAL-Sab); Gerutu: heavy white seraya, urat mata batu (MAL-Sab), meranti gerutu (MAL)

Abbreviation as per DIN EN 13556: White Seraya = PHWS; Gerutu = PHMG

Colour and structure of the wood:

Heartwood brown, no colour stripes. Clear colour contrast between sapwood and heartwood, medium width. Sap light yellowish grey, heartwood varies depending on group. Light woods have a light yellowish to light pinkish brown heartwood; with heavier woods, this is olive brown. The large pores are visible to the naked eye on all cut surfaces. The wood rays are clearly noticeable as reflection on radial surfaces. On tangential surfaces resin ducts partly cause fine raised “cathedral effect” formed by innermost growth rings in long bands. Cross grain exists (but very pronounced to varying degrees).

Properties:

Weight fresh [kg/m³]		-
Bulk density air-dry (12-15 % u) [g/cm³]		0.43 – 0.60
Compression strength $u_{12\text{-}15}$ [N/mm²]		40 – 135
Bending strength $u_{12\text{-}15}$ [N/mm²]		71 – 100
Modulus of elasticity (bending) $u_{12\text{-}15}$ [N/mm²]		8500 – 13000
Toughness [kJ/m²]		50
Hardness (BRINELL) ⊥ to the grain $u_{12\text{-}15}$ [N/mm²]		15 – 21
Drying shrinkage (fresh up to $u_{12\text{-}15}$)	radial [%]	-
	tangential [%]	-
Differential shrinkage [%/%]	radial	0.13 – 0.18
	tangential	0.25 – 0.30
pH value (suspension)		5.0
pH value (surface)		5.0
Natural durability (DIN-EN 350-2)		category 2 – 3 (- 4)

Workability:

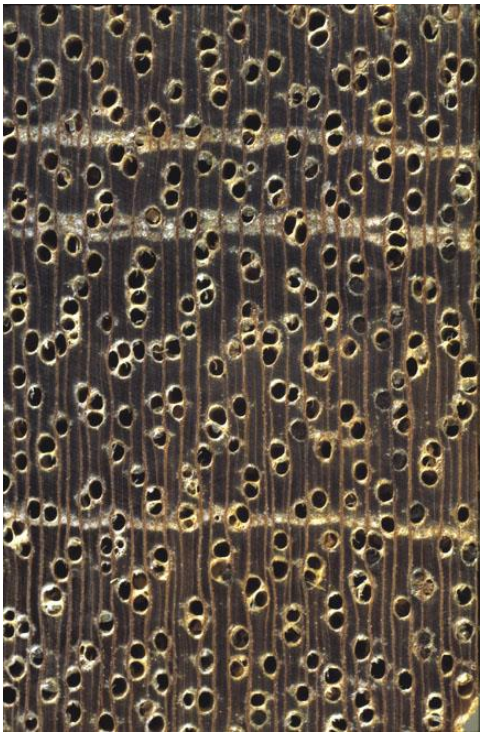
Good workability of both light (White Seraya) and heavy (Gerutu) woods with all tools. Heavy woods (Gerutu) however require increased effort in processing. All woods can be stripped after intensive steaming. Nail, screw and glue joints hold well. Bonding good.

Drying:

White Seraya dries moderately fast and easily. Gerutu, on the other hand, requires longer and mild drying because the wood tends to form cracks and warp.

Use:

Indoor use; supporting, or non-supporting (only Gerutu). Especially suitable for: Rotary cut veneer (for plywood), frame structure (windows, house doors, conservatories).



Macroscopic cross-section of White Seraya
(10 times magnification lens)

Wood surface of White Seraya (radial section)

Surface treatment:

For woods with an increased occurrence and outdraws of water-soluble, washable content the surface treatment can be affected. For closed surfaces pore filler should be used because of the rough porosity. Chemical wood protection necessary. Treatability very poor (sapwood moderate; EN 350–2, 1994).

Coating systems:

The coating systems selected here are variants which ensure utmost durability and lasting quality.

Other coating systems are basically possible; however, they must be coordinated with Teknos.

Details on processing can be found in the technical data sheets for each product.

Windows, doors, conservatories and folding shutters:

System coating	Translucent
Wood preservative	GORI 356 / TEKNOL AQUA 1410-01
Primer	AQUAPRIMER 2900-22
Intermediate	ANTISTAIN AQUA 2901-62
Topcoat	AQUATOP 2600-9X

System coating	Opaque
Wood preservative	GORI 356 / TEKNOL AQUA 1410-01
Primer	ANTISTAIN AQUA 2901-52
Intermediate	ANTISTAIN AQUA 2901-52
Topcoat	AQUATOP 2600-2X

System coating	Colourless
Wood preservative	GORI 356 / TEKNOL AQUA 1410-01
Intermediate	ANTISTAIN AQUA 2901-62
Topcoat	AQUATOP 2600-6X

Further information:

Teknos A/S
Industrivej 19
DK-6580 Vamdrup
Tel: +45 76 93 94 00
www.teknos.com

WE MAKE THE WORLD LAST LONGER

Wood is a unique, beautiful and very versatile material

The features and properties of wood vary greatly and therefore individual attention is required in processing and surface finishing.

With this Teknos wood data sheet we would like to go into detail on the features and range of applications in the coating of important wood species.

The data sheet originated from a collaboration with the Johann Heinrich von Thünen-Institute in Hamburg.

The pH values of wood have been determined as important chemical variables for the first time.

The concentration dependence of extracts such as tannic acids or tannins to the pH value is important.

A good surface coating and targeted selection of system structures shall be safer based on these variables determined by Thünen-Institute and demonstrate wood-related problem solving.

All system structures named in the data sheet are selected according to utmost durability and quality and are considered to be relevant systems. However, a practical test is always necessary.

Due to different application possibilities and stresses of parts to be coated, variations are required.

To select individual systems easily, the Teknos technical department will be happy to assist you.