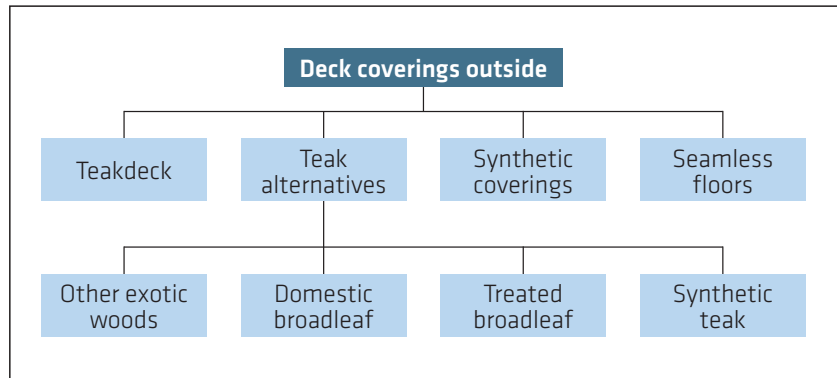


ALTERNATIVES TO TEAK

Teak has been used for hundreds of years as a durable deck material.

Alternatives for teak such as iroko, padouk etc. are used in some cases but necessitate an intensive protection work to assure a long time function. Usually they are used in workboats as thick protective floors.

Teak deck alternatives are shown in the chart beside



OTHER WOODS

ADVANTAGES:

- Not submitted to legislation (FSC-label)
- Good relation price / durability

DISADVANTAGES:

- Durability of these wood is lower than teak
- Shrinkage (hygric) is higher than teak
- No longtime experience in decking's are known
- More irregular grain such as alternating spiral growth etc. Periodical deck control is necessary.

Frequently used woods:



Iroko (Kambala)



Padouk

Others possible alternatives are: oregon pine, afromosia, basralocus, cedro, cordia, kahja, sipo, IPE etc.



IMPORTANT:

Decks done with these woods may show an irregular hygric movement. Such deck coverings have to be observed frequently and eventually noticed joint detachments have to be repaired immediately

TREATED BROADLEAF

This type of wood are home-grown broadleaf treated with natural or synthetic resins.

One example of these product types is Kebony. This is a maple wood treated with natural resins.

With this treatment the following characteristics are achieved:

- Durability comparable to teak with the same colour change to grey - brown
- Hardness, abrasion resistance higher than Teak
- Expansion property as teak

Surface preparation and adhesives are identical to chapter "PROCEDURE OF LEVELLING, BONDING AND CAULKING OF TEAK DECKS".



Fig. 52 Kebony new



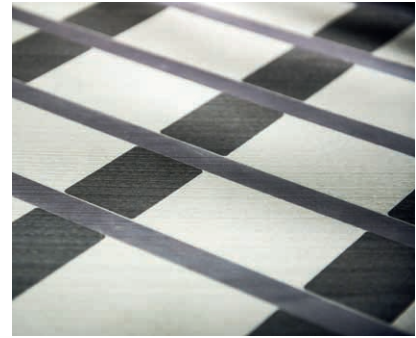
Fig. 53 Kebony aged

Surface preparation are identical to the manufacture of a teak deck (see chapter "PROCEDURE OF LEVELLING, BONDING AND CAULKING OF TEAK DECKS").

SYNTHETIC (ENGINEERED) TEAK

Synthetic teak consists in thin layers of teak which are bonded together. The advantage of this process is the use of the entire tree. (Heartwood and sapwood).

Further information's have to be requested by the manufacturer.



SYNTHETIC COVERINGS

These prefabricated decks are made of different plastics. Quality and durability may differ as well as slip resistance and feel. These coverings are mainly used on yachts.




We distinguish between principally three types of synthetic coverings:

- Polyurethane elastomers / GRP backing
- Synthetic rubber composites
- PVC based coverings
- PU resins








Fig. 54 Different designs

PREPARING PUR BASED DECK COVERINGS





	The covering material must be free from release agents or other media used in the production process. Use appropriate solvent recommended by the manufacturer
	On nonporous coverings, the side that is to be bonded should be cleaned with Sika® Aktivator-100, using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)

PREPARATION OF THE DECK







GRP DECKS

	Heavily soiled surfaces should first be cleaned off with a pure solvent like, Sika® Remover-208, to remove the worst of the soiling
	Lightly abrade the contact area with a very fine sanding pad
	Remove the dust with a vacuum cleaner
	Clean the substrate with Sika® Aktivator-100, using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)





TIMBER DECKS

	Abrade the contact area on the deck with a sanding paper (80 / 100 grit)
	Remove the dust with a vacuum cleaner
	Apply a thin, continuous coat of Sika® Primer-290 DC or Sika® MultiPrimer Marine using a clean brush or a felt applicator.
	Drying times: Sika® Primer-290 DC or Sika® MultiPrimer Marine – 30 minutes (min) to 24 hours (max)

ALUMINUM OR STEEL DECKS





	Steel: Grind (36 P grit) or sand-blast the surface in accordance with ISO 8501-1: 1996 SA 2½ Aluminum: Lightly sweep-blast the surface
	Thoroughly vacuum clean the surface
	If the area is contaminated, treat the surface with Sika® Aktivator-205 using a clean towel
	Flash-off: 10 minutes (min) to 2 hours (max)
	Avoid dust or other contamination until the next step has been carried out
	Apply a continuous coating of two-component SikaCor® ZP Primer within 2 hours of the Sika® Aktivator-100 treatment to the surface, using a clean brush or a roller at a consumption of approx. 200 gr / m ² or 80 µm thickness.

ALUMINUM OR STEEL DECKS, COATED WITH A TWO-COMPONENT PAINT, VARNISH OR FAIRING COMPOUND

	Ensure that the treated metal deck is compatible with Sikaflex®-298. Test the paint with a solvent like acetone or a commercial available silicon remover or paint thinner. If the paint can be removed, sand-blast off the paint down to the metallic surface and use SikaCor® ZP Primer (see page 5)
	Lightly abrade the contact area with a very fine abrasive pad
	Treat the substrate with Sika® Aktivator-100, using a clean, lint-free rag or paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)

For the preparation of other substrates, please refer to the Pre-Treatment Charts for Sika Marine Applications.

BONDING PROCESS

	Apply Sikaflex®-298 on the previously prepared surface and spread using a spreader with 4 mm comb trowel. The thickness layer should be about 1.2 mm, 2x 600 ml sausages per m ² .
	The covering material must be placed in position within 20-30 minutes of applying the adhesive, therefore the adhesive should be applied only to an area large enough to receive the section of covering that can be fitted in this time. Prevent air entrapment!
	Once the covering has been placed in position it should be rolled down with a rubber roller, working from the centre outwards to expel any entrapped air and push any excess adhesive out to the edges, where it can be removed. It is essential to ensure that no trapped air remains To accelerate the curing process we recommend to apply a mist of water using a paint gun. Do it sparingly as Sikaflex® needs only 1 gram of water per square meter. Caution: If the covering material is laid under tension, the edges must be held or suitably weighted
	Fix the deck with weights or vacuum press over night
	Uncured Sikaflex® may be removed from Tools with Sika® Remover-208. On rough surfaces we recommend to leave the adhesive to cure and remove it mechanically

PVC-COVERINGS

Most of the alternatives for teak decks are based on PVC. The composition varies for each deckings. PVC coverings contain organic plasticizer. This plasticizer may have a long time interaction with the used adhesive. Therefore we do not give any recommendation for bonding such products. In such case it is best to get in contact with the distributor in order to receive an adhesive which is recommended by the manufacturer.



IMPORTANT:

Due to the variety of the deck coverings we recommend to seek advice from the procedure of the coverings or contact your local Technical Service department, Sika Industry.