

Technical Data

Benar Marine



Product description

Benar Marine is a premium varnish for tropical woods. Clear varnish with very good weather and water resistance. Benar Marine contains UV-filter which protects the wood specially well, and preserves the glossy surface longer than other yacht varnishes. Benar Marine retains its elasticity over a longer period of time, and gives a first class protection to all types of wood.

Recommended use

Benar Marine can be used on all wooden surfaces above waterline, specially for exterior areas. Can be used inboard, but not in direct contact with textiles, etc. New wood should be primed with Clipper I prior to treatment with Benar Marine.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	30	40	35
Film thickness, wet (μm)	50	65	55
Theoretical spreading rate (m^2/l)	20,6	15,5	17,7

Physical properties

Colour	Clear
Solids (vol %)*	62 \pm 2
Flash point	62°C \pm 2 (Setaflash)
VOC	2,6 lbs/gal (310 gms/ltr) USA-EPA Method 24

*Measured according to ISO 3233:1998 (E)

Surface preparation

The substrate must be dry and free of grease, detergent residues or other contamination. Old loose oil or varnish must be removed. Oily tropical hardwood should be washed with Jotun Thinner No 18 /Jotun Lynol or a thinner for cellulose varnish, followed by a light sanding prior to treatment. Glossy surfaces should be washed with an alkaline detergent and rinse well with fresh water, then sanded down. Weathered surface must be sanded down to fresh wood.

Coated surfaces

Prior to paint application, all surfaces should be clean, dry and free from contamination. Remove surface contamination by high pressure fresh water cleaning. To be applied on a clean, dry approved primer/undercoat.

Other surfaces

Uncoated surfaces. It is important that all cracks and seams are sealed before any application. Clean very thoroughly and sand the surface. To be applied directly on an untreated, clean and dry surface, or over a suitable primer.

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure correct drying.

Application methods

Brush Brush designed for stains

Application data

Mixing ratio (volume) Single pack

Thinner/Cleaner Jotun Thinner No. 2/ Jotun White Spirit

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

Substrate temperature	5°C	10°C	23°C	40°C
Surface dry	18 h	10 h	6 h	4 h
Through dry	48 h	36 h	24 h	18 h
Dry to recoat, minimum	48 h	36 h	24 h	18 h
Dry to recoat, maximum ¹				

1. The surface should be dry and free from any contamination prior to application of the subsequent coat.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Clipper I 5-15 coats
Benar Marine 3-4 x 35 µm (Dry Film Thickness)

Other systems may be specified, depending on area of use

Instructions of use

Sand the wood with P60 - P80 paper for the best possible penetration. On coated surfaces remove loose varnish by using a scrape. Remove old weathered wood and loose wood fibers by a brush. Wood to be primed with Clipper I, 5-15 coats, wet-on-wet, dependant on surface absorption. When the oil is dry according to recoat minimum, surface to be sanded. As alternative, apply one coat of Benar Marine diluted 20-30% with Jotun Thinner No 2 or Jotun White Spirit. Apply minimum 3 coats of Benar Marine. To obtain a good result, it is recommended to lightly sand between coats.

NB! Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in

purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.

Handling

Handle with care. Stir well before use.

Packing size

0,75 litre in a 0,75 litre container.

2,5 litres in a 2,5 litres container.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

Jotun is a World Wide company with factories, sales offices and stocks in more than 50 countries. For your nearest local Jotun address please contact the nearest regional office or visit our website at www.jotun.com

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THIS DATA SHEET SUPERSEDES THOSE PREVIOUSLY ISSUED