technical data sheet



HEAVY DUTY EXTREME VARNISH

interior and exterior

PRODUCT DESCRIPTION

The strongest of all 'one pack' varnishes that dries in minutes and cures in 16 hours to protect interior and exterior surfaces

New water-based crosslinked polyurethane with advanced resin technology brings the highest protection single pack ever developed. UV blocking and absorption reduce greying, aging and deterioration of surfaces. Biocides protect against mildew, mould and fungus.

wood • marine • worktops • doors • furniture • concrete paving • unglazed tiles • slate • brick

SURFACE PREPARATION

Ensure the surface to be coated is clean and free from grease, wax or polish. White spirit or sugar soap should be used as cleaning agents. Sugar soap should be rinsed off well with clean water and allowed to dry. If water has been used on bare wood this would raise the grain. The surface then needs to be sanded and vacuumed before coating. Newly painted wood should first be sanded to provide a key. Extreme Heavy Duty Varnish should not be applied over uncured oil base paint as this may cause discoloration. Older painted wood, where the paint itself may fail, should be stripped using a hot air gun or a chemical paint stripper, sanded and cleaned prior to coating. When applied over an emulsion/latex paint, it is possible that Extreme Heavy Duty Varnish can draw certain stains through the paint which were not otherwise visible. In this case a stain sealer should be used.

Concrete

Clean the surface.

To ensure that the Polyvine Extreme keys, the surface must firstly be cleansed of all moss, mould, lichen, carbon deposits, oil stains and airborne dirt. Thoroughly wash the paving using a pressure washer, ideally with an output pressure of 2500 to 3000 psi and a spray lance equipped with a "turbo-jet" nozzle or specialist rotary attachment designed for cleaning paved surfaces. Alternatively, the surface can be cleaned manually with a max strength patio cleaner and a stiff bristle deck scrubbing brush. Allow to dry.

After cleaning (once dry) the paving should be thoroughly sprayed with Biocidal Wash Treatment This is applied by low pressure sprayer (as for weed killer etc.) to the entire paving surface and is left to dry out (do not rinse). This is an extremely important phase in the process because it will greatly reduce the possibility of moss or lichens re-establishing. The pressure washing process leaves the paving looking clean but the moss root systems and mould/lichen spores are still present in hundreds of microscopic crevices and especially in the joints. Spraying the paving ensures that the paving is sanitised and inert.

Note: Some paving materials occasionally exhibit corrosive efflorescence (salting) and where this occurs it can cause coatings to de-laminate.

APPLICATION

Extreme Heavy Duty Varnish can be applied by brush, spray or roller. Apply 3coats. On softwood, light sanding in between coats may be necessary, if there is any raising of the grain. Allow 2 hours in between coats and 24 hours after final coat before full use. Do not use in temperatures below 10 degrees C/50degrees F or in very high humidity. Lower temperatures will slow the final cure time.

On new softwood and porous surfaces dilute the first coat 10% with water. Lightly sand wood in between applications to remove any raising of the grain.

Dead Flat finish For increased durability and stain resistance first apply 3 coats of Heavy Duty Extreme Varnish Satin followed by 1 coat of Heavy Duty Extreme Varnish Dead Flat. This will result in a slightly brighter finish than using Heavy Duty Extreme Varnish Dead Flat only.

CAUTION

Always apply to a test area before starting work. Appearance may vary according to the colour and type of wood and the number of coats. Do not apply over uncured oil paints.

Apply dead flat finish sparingly and brush out well, over application could result in misting.

Test dead flat finish for misting over dark colours.

Do not apply over uncured oils.



Oak

The open grain texture of Oak will cause film failure.

Varnishes are prone to failure when applied to Oak externally.

It is **imperative** therefore that the grain is filled with coating before further coats are applied.

Oak is not as resistant to weathering as oily hardwoods and, therefore, needs better protection when used outdoors. The large open pores make the problem worse providing a route for water-ingress. Blue-stain mould spores are likely to be present on any piece of timber and will be activated by moisture. Another problem with Oak is the high tannin content, if not properly sealed water (rain) can wash the tannin out of the wood leaving a patchy colour and staining to the surrounding areas (bricks, patio, etc.).

Pre-conditioning to the correct moisture content is very important. If the Oak is outside the moisture content range of 12-20% there will be excessive movement as it comes to equilibrium. The wood can become split, and the coating film may also split exposing bare wood, providing a route for water-ingress and rapid deterioration of the coating.

If this occurs remedial action must be taken immediately to prevent the wood becoming weather-stained. Clean the surface and reapply sufficient coats of the same coating product to fill the cracks/splits.

The coating integrity cannot be guaranteed on green oak.

Caution

Intense exposure to sunlight will cause gradual fading of the timber colour. A pre-treatment of Polyvine Wood Colour is recommended in these areas to enhance the timber colour and prevent fading.

Application to softwood, knots and resin pockets will bleed through the coating.

Maintenance

Inspect yearly for signs of wear or damage.

Clean surface thoroughly and wash of all cleaning solution.

A maintenance coat should be applied every 1 / 3 years on exposed areas, 3 / 4 years on less exposed or sheltered areas.

New and weathered wood

New wood can be contaminated during preparation, or in the machine shop. Weathered wood can already have contaminants on the surface.

All contaminants and millwork must be removed from the surface by sanding, 80/120 grit for vertical, 60/80 grit for horizontal surfaces.

Fungus, pollen or spores not removed and trapped below the clear varnish will discolour the surface of the timber when exposed to moisture. If contamination is suspected treat timber with a proprietary preservative treatment as recommended by the manufacturer.

Previously painted wood

Completely remove old coating with 60/80 grit sandpaper.

Ensure surface is dry clean and free from dust, follow New and weathered wood instructions.

Precoating

Fill all joints, Cracks, and nail holes with a good quality Polyurethane or acrylic filler prior to coating.

COVERAGE

coverage 10-20 sq m per litre, 100-200 sq ft per quart

drying time 30-60mins

recoat time 1-2 hrs

cure time 16 hours in ideal conditions. Allow 48 hours before heavy use eg. furniture dragging, and several days before covering with carpet.



CLEAN UP

Any equipment used can be cleaned using soap and water before the clear coat dries. Wipe any excess off surfaces with a damp cloth. Any dried deposits will need a paint stripper to remove them.

Resistances to:	Polyvine Heavy Duty Extreme	Brand Leader Varnish	Acrylic Varnish	Spirit Based Varnish (pu)
	Varnish (pure pu)	(pu/ac)		varnish (pu)
Ethanol	5	4	0	4
Tea	5	4	3	4
Coffee	5	3	4	3
Detergent	5	4	1	4
Hot wet pan	5	3	0	4
Other Properties				
Non yellowing	5	4	5	2
Hardness	5	4	2	4
Clean up	5	5	5	0
Time to full cure	16hrs	48 hrs	5 days	2 days
(50% rh. 20				-
Degrees C)				

0 = poor. 5 = excellent

FILM PROPERTIES

Dry Film: Satin, Dead flat

Drying Time: approx. 30 minutes @ 20degrees C / 70degrees F Cure Time: approx. 16 hours @ 20degrees C / 70degrees F

Hardness: approx. 150 sec Konig hardness

BHMR: excellent @ 16hours

Non Yellowing

Highly Resistant to: Water, tea, coffee, alcohol, detergent, wet hot pans, etc.

PACKAGING

1L, 4L. US Quart, US gal. Plastic containers.

STORAGE

Store in unopened containers in a cool dry place away from direct sunlight.

HEALTH SAFETY AND THE ENVIROMENT

Non-hazardous. Ensure good ventilation. Keep out of reach of children. Contact with eyes-wash immediately with warm water. Remove excess from tools and mixing vessels before washing in warm soapy water. Do not empty containers into drains or watercourses.

The information supplied herein is accurate to the best if our knowledge. Since conditions and methods are beyond our control, no warranty is expressed or implied. You are advised to assess the suitability of the product on a test area before application

Date of issue: January 2019