DisboPUR 630 PU



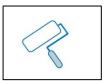
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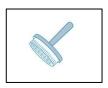
Product Description

DisboPUR 630 PU is a premium quality two-component solvent based viscoelastic Polyurethane Top coat for floor coating systems with excellent chemical abrasion and UV resistance properties for mineral floor surfaces. **DisboPUR 630 PU** can be applied to produce a smooth or slip resistant finish in attractive and serviceable colours. It conveys superior UV protection.











Recommended Use

DisboPUR 630 PU is suitable for exterior use on normal floor surfaces:

- Concrete, Cement or Epoxy screeds/mortars
- All suitable non-aqueous DisboPOX/DisboPUR coatings as per TDS/MS

Unsuitable are all mineral substrates which showing not sound and dry, surface defects, cement laitance, week compressive strength, rising moisture, contaminants or condensation.

DisboPUR 630 PU should only be used by experienced and trained professionals.

Recommended Fields of Application

Kerbstones

Warehouses

Walk ways

Parking garages and plant rooms

External parking deck areas

Car parks internal and external

Ramps

Physical Properties*

Colour Selected range of colours

Always use material of same batch or mix different batches, when applying on seamless surfaces.

Volume solids 47±2% VOC 433 g/litre

Thinner/Cleaner Polyurethane thinner

Finish Gloss
Flash point > 25°C

Packing size 4 & 20 kg (Base + Hardener)
Mixing ratio 4.4 base: 1.0 hardener pbw

Shelf life 6 months

*The values stated are average values. All Data is valid for mixed product only. The actual value determined on an individual delivery may deviate slightly, without compromising product suitability. In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Advantages

Viscoelastic /flexible

UV resistant

Weather proof

Moisture resistant

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None yellowing

Resistance to chemicals (ethanol 50% (v/v), acetic acid 3%, soap solution, acetone, lube oil, vegetable oil etc.)

Resistant to aqueous solutions, caustic solution, diluted acids, petrol, greases and fats

Low maintenance costs

Durable

Certificates and Test Values*

DCLD Product Conformity certified

ADCE certified civil supplier

Test Name	Test Methods	Remarks
Water Penetration	BS EN 12390 Part 8 - 2000	Nil
Chemical Resistance	ASTM D 1308:87	No changes were observed
Acid & Alkali Resistance	ASTM D 543	No changes were observed
Tensile Strength & Elongation	ASTM D 412	23 (N/mm²) & 3.3%
UV Resistance	ASTM G 154 – 12a (300 hours)	No significant changes were observed

^{*}Additional certificates and approvals may available on request or could be arranged if required. The material offers good general chemical resistance, but as in all corrosive situations, a full analysis of operating and exposure conditions is required, followed by reference to chemical resistance data to ensure product suitability.

Substrate Quality and Surface Preparation

The long-term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate.

IT IS MOST IMPORTANT THAT SUBSTRATES ARE CORRECTLY PREPARED PRIOR APPLICATION!

All substrates (new and old) must be structurally sound and free from contamination such as oil and grease, rubber skid marks mortar and paint splashes, curing compound residues or other adhesion impairing contaminants. Conventional concrete curing compounds should be removed before application. Excess laitance deposits are best removed by mechanical surface profiling, like diamond grinding, ball blasting, grit or shot blasting, milling or hydro-jetting (including the necessary post-treatment), followed by brush and vacuum cleaning to remove dust debris to achieve an open textured surface. Mechanical wire brushing may be appropriate for small areas. Oil and grease penetration should be removed using a proprietary chemical degreaser or by hot compressed air treatment.

Any damaged areas, surface irregularities or blowholes/voids should be repaired before application. Adjust the substrate evenness of the planned, finer surface finish. If necessary, carry out additional substrate levelling measures. The compressive strength of the substrate shall not be less than 25MPa.

Damaged, weak concrete should be cut back to sound concrete and surface defects must made good with a suitable cementitious repair mortar, solvent based epoxy filler or a scratch coat of solvent based epoxy sealer/primer. The concrete slab in contact with the ground must have a vapour barrier installed. Repairs must be well set and dried out. Damp or not fully cured substrates can lead to defects in subsequent coats, such as blistering or cracks. Check existing coatings for their load-bearing capacity. Remove any non-load bearing or structurally weak coatings.

The pull-off (adhesive/tensile bond) strength of substrates must be 1.5 N/mm2 on an average, with a minimum individual value of 1.0 N/mm². The residual moisture content of the substrate must not exceed 4% pbw when using the CM-measurement or Oven-dry-method. No raising moisture according to ASTM (Polyethylene-sheet). The temperature of the substrate must be at least 3°C above the current dew point temperature. A damp proof course must have been properly installed and be intact.

IF IN DOUBT, APPLY TEST AREA FIRST!

Protect walls and columns against resin splashes using masking tape and plastic sheeting.

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Mixing the Coating

DisboPUR 630 PU should be mixed in the proportions supplied in the exact ratio. Before mixing, precondition both base and hardener components to a temperature of approximately 15 to 25°C.

DO NOT MIX BY HAND!

The base and hardener components of **DisboPUR 630 PU** should be thoroughly stirred before the two are mixed together. Mix mechanically using a slow speed stainless steel (300-400 rpm) electric stirrer with a wing type mixing paddle or other suitable equipment. For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers should not be used. Mix the base slowly in its container, and then the entire contents of the hardener container should be poured into the base container while continuing to mix the two materials thoroughly for 3 to 4 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles.

DO NOT WORK OUT OF THE ORIGINAL CONTAINER!

After proper mixing to a homogeneous consistency pour the mixed material of base and hardener into a fresh container and mix for another minute thoroughly to achieve a consistent mix. Then if necessary, add the quartz sand and mix for a further 2 minutes until a uniform mix has been achieved. Use the material as quickly as possible after mixing.

ENSURE SHORT STIRRING TIMES AT LOW SPEED TO PREVENT AIR BUBBLE FORMATION IN THE MATERIAL!

Foam formation can have an impact on adhesion and can cause visible small pores. This, in turn, leads to patchy and inhomogeneous drying and visible imperfection of the coating layer. Only if necessary adjust the working consistency of **DisboPUR 630 PU** with **PU Thinner** up to max. 5%.

Film Thickness and Spreading Rate on Average Quality Substrate*

Primer/Base/Roller/Sealer Coat- on low/medium porous, even concrete, smooth

	Minimum	Typical	Maximum		Consumption
Wet film thickness	85	95	106	μm	
Dry film thickness	40	45	50	μm	
Theoretical spreading rate	9.0	8.0	7.2	m²/kg	0.11-0.14 kg/m ²

If the coating is not to be over coated within 48 hours, the fresh primer should be sanded off (not to excess, but grain to grain) with DisboADD 450 (0.1-0.4mm): Consumption 0.5-1.0 kg/ m^2 . If necessary (for anti-slip) sprinkle in excess the fresh levelling layer with DisboADD 460 (0.4-0.7mm) or DisboADD 480 (0.7-1.2mm): Consumption 3.0-5.0 kg/ m^2

Roller/Sealer Coat - on medium/rough porous, uneven concrete or anti-slip prepared base coats

	Minimum	Typical	Maximum	Consumption
Wet film thickness	106	108	128	μm
Dry film thickness	50	55	60	μm
Theoretical spreading rate	7.2	6.6	6.0	$m^2/kg = 0.14-0.17 kg/m^2$

^{*}Indicated rates are indicative per coat. This indication does not take into account usage for spilling or loss on site. These figures are theoretical and do not allow for any additional material required due to surface porosity, surface profile, variations in level or wastage etc. or application conditions. Coverage on non-slip aggregate would reduce spreading rate considerably. Consumption of the mixed material is dependent on the surface condition, porosity and roughness, and may be higher on very rough or porous substrates. The exact rate of consumption for your particular project is best established by a trial application on site and executed by your desired applicator.

Pot Life / Working Life*

Substrate temperature	10°C	25°C	40C	
Pot Life	180	120	20	minutes

^{*}Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

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Drying Time*				
Substrate temperature	10°C	25°C	40°C	
Dry to over coat, minimum	24	12	6	hours
Dry to over coat, maximum	96	48	24	hours
Ready for use - foot traffic	48	24	12	hours
Ready for use - light traffic	5	3	2	days
Ready for use - full cure for service	10	7	5	days

^{*} Drying time generally related to air circulation, temperature, film thickness, no of coats and relative humidity. The given data must be considered as guidelines per coat only. The actual drying time before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying substrate, requirement for early handling and mechanical strength etc. The figures given are typical with: Good ventilation (outdoor exposure or free circulation of air), typical film thickness, on coat on top of inert substrate and relative humidity 70%. Dry to over coat, minimum: The shortest time allowed before the next coat can be applied. Dry to over coat, maximum, atmospheric: The longest time allowed before the next coat can be applied. Ready for use: Minimum time before the coating can be permanently exposed to the intended environment/medium.

Application Conditions/Limitations

New concrete floor should be at least 28 days old or have a moisture content of less than 4% before proceeding with epoxy application. Substrate temperature should be max. 30°C and min.10 and at least 3°C above the dew point of the air and for at least 24 hours after the application at (15°C).

DisboPUR 630 PU should not be applied on surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75%. The curing time of the material is influenced by the ambient, material and substrate temperatures. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum. For all floor coating applications, apply on a constant or falling temperature only as this will decrease the risk of bubble formation due to expansion of air that is enclosed in the concrete!

If applied during rising temperatures "pin holing" may occur from rising air. After application, the material should be protected from direct contact with water for approx. 24h (at 20°C). Within this period, contact with water can cause a surface bloom and/or surface tackiness, both of which must be removed. In common with all epoxy materials, some slight shade changes may be experienced over the long term when placed in adverse exposure conditions. Any such change in shade is not regarded as being detrimental to performance.

Application Equipment's/Tools

DisboPUR 630 PU can be applied to the prepared substrate by spreading with a squeegee, roller, brush or trowel. The best choose depending to substrate condition, application method and how the material will be used. Re-usable tools must be cleaned carefully with **PU Thinner**. Always ensure that the tools are to be in use for Polyurethane material only (not for solvent or water based Epoxy as well aqueous products).

Associated Products

DisboPOX Epoxy Filler SF (Off-white to beige, solvent free epoxy filler)

DisboADD (Silica quartz sands/fillers):	Product name	Grain size
	DisboADD 450	0.1 – 0.4 mm
	DisboADD 460	0.4 - 0.7 mm
	DisboADD 480	0.7 – 1.2 mm
	DisboADD 490	1.2 – 2.0 mm

Various **non-aqueous DisboPOX/DisboPUR primers & topcoats** can be used in combination with this product. Contact Caparol for specific system recommendation.

Caparol PU Thinner (Polyurethane thinner)

Cleaning of Tools

Tools must be cleaned immediately after use or during longer breaks with **PU Thinner**.

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Typical Application Procedure*

Primer/Base Coat

Ensure that the substrate is free from dust and building debris and that the area has been secured to prevent intrusion of dust, airborne particles, insects, small animals, etc. Make sure that windows and doors are closed. To avoid colour deviation from one batch of the resin to another, only use resins with the same batch number in the same area. All concrete surfaces to be overlaid with **DisboPUR 630 PU** should be primed and/or additional prepared with filler and/or intermediate coat as required with suitable non-aqueous DisboPOX products. If the coating is not to be over coated within 24 hours, the fresh primer should be sanded off (not to excess, but grain to grain) with **DisboADD 450** (0.1-0.4 mm). Also to sprinkle sand onto the wet primed surface is required for subsequent anti-slip (anti-skid) coatings; applied by roller, use **DisboADD 460** (0.4-0.7 mm). If the application of the primer/ base coat is delayed more than 24 hours after the application of the primer (not sanded off), then the primer must be thoroughly abraded to give an adequate mechanical key and solvent wiped. A subsequent application of a solvent-free, non-aqueous DisboPOX /DisboPUR coating can be carried out in accordance to the respective Technical Data Sheet and/or Method Statement.

Roller/Sealer Coat Smooth

DisboPUR 630 PU can be applied on approved primed surfaces .1st coat base or primer should be applied using a good quality roller, suitable for epoxy application, or squeegee to achieve a continuous coating. Ensure that loose hairs on the roller are removed before use. When the base coat has reached initial cure then **DisboPUR 630 PU** can be applied by medium haired roller. Care should be taken to ensure that a continuous film is achieved.

Anti-slip Application

For slip resistant texture finish the primer shall be applied as per the standard application or specifications. The base coat should then be dressed with the chosen anti-slip grain **DisboADD 450-490** (0.1mm - 0.4mm), this should be done immediately after application. The recommended procedure is to completely blind the base coat i.e. applies excess dressing aggregate to completely obliterate the base coating. Alternatively, the anti-slip grains can be broadcast in a light random dressing to provide a less dense finish. When the base coat has reached initial cure, the excess aggregate should be vacuum cleaned from the surface. The 2nd coat can now be applied by medium haired roller as per specification. Care should be taken to ensure that a continuous film is achieved and the rough surface, caused by the aggregate is completely sealed.

Important Note

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Caparol's technical documentation.

Applicators and operators shall use appropriate personal protection equipment when using this product. The user of the product must test the product's suitability for the intended application and purpose. Users must always refer to the most recent issue of the local Technical Data Sheet (TDS) for the product concerned, copies of which will be supplied on request.

Field service where provided does not constitute supervisory responsibility. Suggestions made by Caparol either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Caparol, are responsible for carrying out procedures appropriate to a specific application.

Maintenance

To maintain the appearance of the floor after application, DisboPUR 630 PU must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes.

Colour Stability

In common with all epoxy materials, some slight shade changes may be experienced over the long term when placed in adverse exposure conditions. Such products may fade and chalk when exposed to sunlight and weathering. Any such change in shade is not regarded as being detrimental to performance.

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Storage and Handling

6 months when stored in warehouse conditions between 15 - 35°C in the original, unopened packs. The product must be kept in in a cool, dry, enclosed, well ventilated space and away from source of heat and ignition. Do not expose to direct sun-light. Containers must be kept tightly closed and always handle with care. Keep out of reach of children.

Disposal

Material and related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Attention should be paid to removing wastage from site in compliance with standard construction site procedure. Only completely containers should be handed in for recycling. Liquid and hardened material which contains organic solvents or other hazardous substances shall be disposed of as paint waste. Uncured product residues are special hazardous waste. Do not empty contents into wadis, drains or watercourses.

Health and Safety

After full curing, **DisboPUR 630 PU** is physiologically harmless. Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Wear safety gloves, goggles and protective clothing. When workings with the product do not eat, smoke or works near a naked flame.

Spillage on the skin should immediately be removed with suitable cleanser, soap and water. If mixed resin meets the skin, it must be removed before it hardens with a resin removing cream followed by washing with soap.

Avoid prolonged inhalation of solvent vapors. Some people are sensitive to epoxy resins, hardeners, and solvents; it should not meet skin and eyes or be swallowed. All respiratory equipment's must be suitable for the purpose and meet appropriates standards. In case contact with eyes, rinse immediately with plenty of water and seek medical advice immediately.

The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling epoxy resins must be followed.

Disclaimer

This guideline is given based on the present state of our best scientific and practical knowledge of the products when properly stored, handled and applied under normal conditions in accordance with Caparol's recommendations. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. Caparol's products are considered as semi-finished goods and as such, products are often used under conditions beyond Caparol's control. Caparol cannot guarantee anything but the quality of the product itself.