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NUTHANE Slurry & Broadcast (SB) POLYURETHANE HEAVY DUTY FLOORING SYSTEM

DESCRIPTION:

Nuthane is an industrial grade floor topping system specifically designed for the Australasian food industry. Nuthane resin is blended with specially graded silica quartz aggregates to produce a floor system that is hard and durable, resistant to impact, abrasion, thermal shock and chemicals/food acids, yet is non porous, hygienic and easily cleaned.

Slurry & Broadcast system gives a thinner, more even base.

TYPICAL

PHYSICAL PROPERTIES & FEATURES:

- Nuthane is a heavy duty monolithic 6mm thick floor topping based on polyurethane technology.
- **No smell** during application.
- **Low temperature application.** Use above 5°C
- Application to damp concrete surfaces.
- **Very high chemical resistance to:**
Acids, alkalis, Solvents, staining materials, Hypochlorite, food acids, blood. Aggressive cleaners, short-term steam and hot water, etc. see separate data.
- Excellent abrasion resistance (6 times that of basalt concrete).
- Excellent impact resistance:
- Excellent adhesion to properly prepared substrates.
- Easily cleaned.
- Good slip resistance.
- Able to be formed into coving, plinths, sumps etc.
- Good resistance to thermal shock.
- Contains **Sterishield** as a bacterial growth inhibitor. Will not promote bacteria or fungal growth. Cured film is non-toxic.
- Not moisture permeable.
- Flexural strength: 25Mpa
- Weight per m² @ 6mm thickness: 14kgs/m²
- **Colours:** red / green / brown/ yellow / grey / Tan or other darker toned colours as required. See specified colours at rear.



RECOMMENDED USES:

- Freezing works, abattoirs, butchery floors, bottling plants, breweries, Cosmetic & Pharmaceutical & food and beverage processing plants.
- Dairy factory floors.
- Ablution blocks, kitchens, laundries, supermarkets.
- Floors where a high degree of chemical, mechanical and slip resistance is of prime importance.
- Food process floors where a high degree of hygiene is required. Approved by regulatory authorities.
- Interior/exterior use. Concrete repair and protection – resurfacing damaged or broken concrete with a more physical and chemical resistant surface.
- Can be applied to new or existing sound concrete and also over old resin floors
- Suitable for use in dry or wet situations including ramps.
- Slip resistance

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LIMITATIONS:

- Nuthane SB will bond to sound concrete. Application not recommended to uncured concrete (However please note that Nuplex strongly recommend minimum recommended cure 28 days. Un-cured concrete is weak with a low MPA.).
- Nuthane will bond to damp concrete. Refer to Nuplex as we may give advice in specific applications. Refer to surface preparation below and/or Tech Bulletin on "wet Floors" on the Bulletin board on the website. Normal abrasion techniques must apply.
- Nuthane will bond to concrete that is 3+ days old as long as specific concrete design and installation specifications are adhered to. It should be emphasised that success in this application is fully attributable to concrete design.
- Application to unstable or defective substrates without approved remedial treatment prior to installation.
- Nuthane SB is a slurry material and may not fill excessive floor undulations and/or slopes. Refer Sureshield or Supascreed for trowel on materials.
- Application over existing coatings/toppings (refer to Nuplex) or over concrete cure or release agents without Nuplex approval or over ceramic tiles without specific written Nuplex design specification.

Refer to Nuplex chemical resistance data.

Warranty

Nuthane is warranted for 10 years for durability. See warranty form

SURFACE PREPARATION:

- All concrete must be shotblasted or coarse diamond roughened or scabbled immediately before use.
- Coves may be installed at this stage using Nuplex Supascreed resin. Employ Nuplex metal coving strips as required.
- **Edge recess constraints:** This is compulsory to control topping movement. A floor recess must be cut at all perimeters, doorways, around columns and both sides of floor or control joints. This is 5mm wide and 6-8mm deep and is cut 50mm from the edge. It is cut with two blades and the internal area knocked out.
- **Wet concrete :** Scabble or shot blast the concrete to "open the surface" and use fans to dry the surface for > 24hours. Allow no further wetting.
- **Wet and uncured concrete (<28days) concrete :** Allow no further wetting- (rain). The concrete design must be controlled for early cure and low water content. The engineer must ensure that the concrete has:
Low water / cement ratio.
High strength and rapid setting concrete.
Water reducing agents.
Early curing agents.
No curing membranes.
Certified by the concrete placer that the above has occurred. For the warranty, above, to apply certification of the engineered concrete must occur and Nuplex and its contractor must see evidence of its formulation and correct installation.
Scabble or shot blast the concrete to "open the surface" and use fans to dry the surface for >24hours.
- **Prefill: Nuplex offer STZ prefill** system types for adding falls, slope modification and floor angles.
see that data sheet for info.
- **Coving:** Consider whether coves are installed before or after the main floor area. It is normal to install all coves first.

APPLICATION:

For porous concrete, prime the properly prepared floor areas with minimum one coat of Supascreed Primer. Coverage rate and number of coats will vary

depending on the porosity of the substrate, Maximum coverage 6m²/litre/coat. Wait until Supascreed Primer is dry and has gelled/set before overcoating.

Install coves.

Nuplex Nuthane must be applied in such a manner to achieve a minimum 6mm thickness. Use screed box, bars or install angle strips as a guide.

Accurately weigh and power mix until homogeneous Nuthane, resin and activator in the ratio of 1 : 1 by weight.

Once the Nuthane resin and activator are blended well, mix with Nuplex Nuthane floor sand in the ratio of:

Mixed Resin : Nuthane **SB filler** aggregate: **1 : 3.**

Example mix: **Resin / hardener / SB aggregates: 4: 4: 24 kg.**

This mix will cover 3.2m² approx.

Blend in an efficient mixer to ensure all ingredients are homogenously blended. Mix slowly to avoid aeration.

Apply Nuplex SB Nuthane flooring to correctly prepared and sealed substrate using a spreader box and/or a suitable glass, steel trowels, power float etc to obtain a 5-6mm finish. Ensure the matrix is well compacted and free of ridges or unevenness. Successive mixes must be homogeneously blended together into wet Nuthane mixes. Access to repair wet floor areas during installation can be achieved using crampons or special spiked shoes.

Once levelled, broadcast evenly K20s aggregate (Larger 18/36 is an option) into the wet surface at a rate of 3-4kg /m². Broadcast until refusal and no more wet resin appears. This is a heavy application rate. Work carefully to keep a clean working edge.

Adequate lighting is to be provided to ensure defective surface finishing can be easily identified and corrected during the installation process. Keep equipment used during the installation clean to prevent lumps developing.

If applying at low temperatures, ensure good forced air cross draft to ensure a strong cure.

Slip resistance is controlled by the broadcast aggregate:

- K20s fine non-slip, attractive safe floor.
- 18/36 for a coarser underfoot finish
- 7/14 for very secure no slip
- 18/36 with Silicon carbide for sharp "grabby" non-slip in very slippery situations.

Ensure all finished edges of the Nuplex Nuthane are supported to avoid damage.

Optional coves and skirtings can be completed as the main floor is installed however they may be installed before installation of the floor. Use Nuplex Nuthane Cove mix to form coves. Floors must be protected during cove/skirting installation.

One coat of **Nuthane Topcoat** is now roller applied at a spread rate of 3-4m²/litre To do this, mix: Nuthane Resin: Hardener: Topcoat filler in the ratio:

4.0:4.0:4.0 Kg (12 kg/ 8Lts). Mix well and apply as stated in an even fashion over the Nuthane base coat and coves. This mix will cover approx 24-30m².

For a smoother finish, apply a second topcoat.

QUALITY ASSURANCE:

A log shall be kept by the licensed Nuplex contractor and made available to Nuplex Industries Ltd at their request. Information to be recorded daily is:

1. Concrete sub-base or prefill mix.
2. Material batch numbers used.
3. Sequence of mixing, ratios and quantities and formula.
4. Substrate moisture content & Substrate temperature.
5. Ambient temperature / Ambient relative humidity.
6. Daily detail of licenced contractors.

THINNING:
CLEAN UP:

Do not thin.
Nuplex brush cleaner Or Solvent HA

CURE AND DRY TIMES:
(25°C 50% RH)

Workable pot life: 20-30 minutes
Hard Dry: 3 hours
Light foot traffic: 6 hours
Recoat: Anytime within 24 hours
Full Use: <12 hours

SHELF LIFE:

6 months in unopened containers. After this period suitability for use should be checked in consultation with Nuplex Industries Ltd.

MAINTENANCE

Nuthane can be patched by reapplication of itself or patched with Supascreed. It is tolerant of all commercial cleaning products and methods.

Pack Sizes:

Nuthane Resin 20kg or 4 kg
Nuthane hardener 20 kg or 4kg
Nuthane SB Filler 24 kg or 25kg bag
Nuthane Top Coat filler 4 kg plastic pail
K20s 25kg

Colours

Nuthane Cove mix: Supascreed 20lt/6.7Lt
Nuthane, because of its dark resin base, is supplied in coloured form. These are approximately matched to British Standard. Colours see our website chart:
Red: 04C39, Green: 12B25, Yellow: 10E51, Grey: 10A07
Tan: 08D44. However any darker / deeper toned colour can be matched.

Summary of Key features

- Zero odour / no contamination effects
- Substrate tolerant.
- Rapid installation
- Low temperature cure
- Heat & Chemical resistant
- Hardwearing & high adhesion



Nuthane Epoxy covers prior to Nuthane topcoat.



Application of Topcoat to Nuthane base.

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