

Technical Data

Noretane SL

PROPERTIES AND RECOMMENDED USAGE

Paint type:

Noretane SL is a two component, solvent free, self levelling polyurethane coating with an aromatic isocyanate curing agent. When cured Noretane SL forms a flexible, abrasion, impact and chemical resistant dense surface.

Typical uses:

Concrete and steel surfaces exposed to mechanical and chemical stress such as process plant floors, secondary containment reservoirs, ventilation engine rooms, power plants, balconies etc. concrete surfaces which are sensitive to cracking. Noretane SL withstands hot water cleaning and –overflows without cracking. Noretane SL can also be used on asphalt surfaces.

Most common SFS-EN ISO 12944-5 systems:

A2.06 EPPUR 120/2-FeSa2½

A4.13 EPZn(R)EP 160/3-FeSa2½

A4.08 EPPUR 240/3-FeSa2½

A5I.02 EPPUR 320/4-FeSa2½

Chemical resistance:

Correctly applied Noretane SL withstands splashes of and immersion to water, oil and weak process chemicals. Withstands acids and alkalis in overflow stress. The more specific chemical resistance in a given case should be clarified through the technical sales service of Nor-Maali Oy.

Colour retention:

Colour may change under the influence of UV-radiation. Top coating with Normadur 65 HS (semigloss) prevents colour changes and chalking.

TECHNICAL DATA

Volume solids:	approx. 100 vol. %
Total mass of solids*:	approx. 1430 g/l
VOC value*:	approx. 0 g/l

*Values are calculated.

Density:

1,43 kg/l

Mixing ratio:

Resin	4 parts by volume
Cure	1 part by volume

Pot life (+20 °C):

Approx. 20 minutes after mixing.

Drying times (2 mm):

	+5 °C	+20 °C
Surface dry	4 h	2 h
To walk on	27 h	16 h
Fully cured	14 d	7 d

Calculated theoretical coverage and recommended film thickness of Noretane SL mixture:

Dry film	Noretane SL	Noretane SL + 50 vol. % Filler 2 (0,1-0,6 mm)
0,5 mm	0,5 l/m ²	-
1,0 mm	1,0 l/m ²	-
2,0 mm	2,0 l/m ²	1,5 l/m ²
3,0 mm	3,0 l/m ²	2,2 l/m ²
4,0 mm	4,0 l/m ²	2,9 l/m ²

Recommended film thickness:

Light exposure	0,5 – 1,0 mm
Severe exposure/cracking concrete	2,0 – 4,0 mm

Actual coverage:

Depends on the roughness of the surface and the application method.

Tensile strength*:	11 N/mm ²
Elongation at break*:	n. 65 %
Hardness (Shore D)*:	60

* Values without sand filling.

Colour:

NOR 114 (grey), other colours with limitations.

Cleaner:

OH 17

Finish:

Gloss

APPLICATION INSTRUCTIONS

Surface preparations:

All solid impurities that could prevent adhesion should be removed from the old surfaces. Remove salts and other water soluble impurities by wet cleansing with brush, high pressure-, steam- or alkali cleansing. Remove grease and oils by alkali-, emulsion- or solvent cleansing (SFS-en ISO 8504-3, SFS-EN ISO 12944-4). The surfaces should be rinsed carefully with fresh water after cleansing. Old, painted surfaces, in which maximum overcoating interval has expired, additional roughening with suitable method is recommended.

Steel surfaces:

Blast cleaning to Sa 2½. Surface roughness > 80 µm.

New concrete surface:

The concrete must be dry and at least 4 weeks old, and humidity no more than 97 % (4 % by weight). The floor humidity can be tested if a humidity gauge is not available by using a rubber mat. The colour of the floor under the rubber mat must not be darker than the rest of the floor after a 24 hour test. Additives such as melamine resins, silicones or silicates that might decrease the adhesion or absorption of the coating must not be used. Loose concrete, laitance, residues of plastic dispersions and waxes should be removed from the concrete surface with abrasive blasting or grinding. If required a 15-20 % hydrochloric acid solution could be used.

Old concrete surface:

Grease and other dirt is removed from uncoated surfaces by emulsion cleaning. Grease removal can be made more effective by flame cleaning an old coating or laitance is removed by sand blasting, milling or grinding. Other methods as for 'New concrete surfaces'.

Environmental conditions during the application:

During application the temperature of the paint should be above +15 °C, air and surface temperature should be between +5 °C - +40 °C and the relative humidity of air below 80 %. The surface temperature should be min 3°C above the dew point of the air. The best result and the easiest working conditions are obtained in the temperature range +18 °C to +25 °C. Application in direct sunlight (or when surface temperature is rising) should be avoided because there is a risk of air bubbles in coating.

Mixing the components:

The curing agent is added to the resin in the correct ratio 4:1 (resin:cure) a little before application is begun. The mixing is done thoroughly using a slow-rotating mechanical mixer. **The mixture is poured into a new container and mixed again. Possible addition of filler is made at this point under continuous mixing.** Inadequate mixing adversely affects the curing and the final finish. The workability time of the ready-mixed screed can be prolonged by pouring it onto the surface to be coated immediately after mixing. Over 2 mm coatings Filler 2 (0,1-0,6 mm) sand can be added (50 vol. %) into the paint mixture to improve coverage and abrasion resistance.

Priming:

To increase adhesion and to avoid air bubbles which can occur due to porosity of the concrete surface, concrete is first primed with thinned **Normafloor 105** epoxyprimer. To improve absorption, primer can be thinned up to 10 - 35 vol-% (thinner OH 13 or OH 17). Surface spots with a high absorbancy should be primed again after 4 hours. **Asphalt surfaces should be primed with Normadur 65 HS polyurethane coating by using a roller.** In order to ensure the best possible performance of the product, it is recommended that the paint is at room temperature before the application.

Application with trowel:

The application of the coating is begun 16 - 30 hrs after priming. The coating mixture is spread over the area to be coated, and evened out to the desired thickness, e.g. with an adjustable trowel or a cogged trowel. The surface is smoothed down with a steel spreader.

Storage and shelf life:

The product must be stored in original sealed containers at temperatures from 5°C to 30°C. The storage conditions are to keep the containers in a dry, well ventilated space away from source of heat and ignition. When stored as described above, the unopened component A will keep up to **3 years** and unopened component B to **2 years** from the date of manufacture. The date of manufacture is indicated in the label of the paint can as a batch date.

CE marking:

	
0416	
Nor-Maali Oy Vanhatie 20 15240 Lahti, Finland Declaration of performance No. NOR1-0114	
0416-CPR-7826 EN 1504-2:2004 Surface protection products - Coating Physical resistance (5.1)	
Abrasion resistance	Weight loss < 3000 mg
Capillary absorption and permeability to water	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
Impact resistance	Class II: $\geq 10 \text{ Nm}$
Adhesion strength by pull-off test	$\geq 2,0 \text{ N/mm}^2$
Dangerous substances	See safety data sheet

	
Nor-Maali Oy Vanhatie 20 15240 Lahti, Finland Declaration of performance No. NOR6-0114	
SR-B2,0-RWA10-IR10 EN 13813:2002 Synthetic resin screed	
Release of corrosive substances	SR
Capillary absorption and permeability to water	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
Abrasion resistance	RWA 10
Adhesion strength by pull off test	B2,0
Impact resistance	IR10
Dangerous substances	See safety data sheet

Safety:

Please follow the environmental and safety instructions displayed on the container and Safety Data Sheet. Use under well ventilated conditions. Do not breathe or inhale mist, use respirator mask. Avoid skin contact. Spillage on the skin should immediately removed with suitable cleanser, soap or water. In case of contact with eyes, rinse immediately with plenty of clean water and if necessary seek medical advice.

DISCLAIMER: The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, as the paint is often used under conditions beyond our control, we cannot guarantee anything but the quality of the paint itself. We reserve the right to change the given data without notice. Please contact our office for more specific information.

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