NORMADUR AQUA DTM

TECHNICAL DATA SHEET 11/23

PROPERTIES AND RECOMMENDED USAGE

Paint type
Water-borne, two-component glossy polyurethane coating with an aliphatic isocyanate curing agent. It contains rust preventing pigments. Normadur Aqua DTM has been tested according to standard ACT Volvo STD 423-0014 (rev. 6) and it fulfills the requirements. The test has been performed by the third party (Chemetall AB, Sverige).

Typical and recommended uses
Can be used in environmental classes C2 - C3 as a gloss retaining and abrasion resistant single coat on easily painted steel products such as machinery and equipment. NORMADUR AQUA DTM is also used as a top coat in environmental classes C2 - C5 on various primers.

Chemical resistance
Used in recommended paint systems, and correctly applied withstands occasional splashes and spillage of water, oil and weak process chemicals.

Weather resistance
Withstands sunlight and UV radiation.

Colour
A limited range from RAL and NCS colours. The objects painted with the same shade, but using different paint types, might have differences in the appearance and shade due to the variation in the paint properties, gloss levels and application methods.
Note! Colour darkens when it dries.

Finish
Glossy

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.

TECHNICAL DATA

Volume solids*	54 ± 2 %
Total mass of solids*	833 g/l
VOC value*	120 g/l

* Values are calculated

Mixing ratio

Resin	6 parts by volume
Cure	1 part by volume

Pot life (+23 °C)
approx. 3 h after mixing

Packaging

	Volume (l)	**Size of container (l)**
Comp A	6	10
Comp B	1	1

Drying time 80 µm

	+23 °C
Surface dry	45 min
To touch	2.5 h
To handle	5 h
Fully cured	7 d

Drying times are typical on recommended film thicknesses at given temperatures. The maximum overcoating time is 1 day without roughening provided the surface is free from dirt and grease.

Calculated theoretical coverage and recommended film thickness

Dry	**Wet**	**Coverage**
60 µm	110 µm	9.0 m²/l
80 µm	150 µm	6.7 m²/l
120 µm	220 µm	4.5 m²/l
150 µm	280 µm	3.6 m²/l

As many of the paint's properties will change if too thick coats are applied, it is not recommended that the product is applied to a film thickness that is more than the thickest recommended film. Too high film thickness causes blistering into the paint film.

Practical coverage
Depends on wind conditions, the structure to be painted, the roughness of the surface and the application method.

Thinner
OH 00

Cleaner
Water

APPLICATION INSTRUCTIONS

Surface preparations
All solid impurities that could prevent adhesion should be removed from the surfaces to be painted. Remove salts and other water soluble impurities using fresh water 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 clensing. Old, painted surfaces, in which maximum overcoating interval has expired, additional roughening with suitable method is recommended. The place and time for the surface preparation should be chosen correctly, to avoid contamination and moistening of the treated surface before the paint application.

Steel surfaces
Abrasive blast clean recommended to grade Sa 2½ (SFS-ISO 8501-1, SFS-EN ISO 8504-2).

Primer
EPOCOAT 21 PRIMER, NORECOAT FD PRIMER, NOREPOX AQUA DTM, NORMAZINC SE, JOTAMASTIC 90, JOTACOTE UNIVERSAL S120 **Note!** Primer has to be thoroughly undamaged and rustless before the topcoat is applied.

Top coat
NORMADUR AQUA DTM

Environmental conditions during application
The surface should be dry and clean. During application and drying time the temperature of the air and surface should be above 20 °C and the relative humidity below 30 %. The surface temperature should be min. 3 °C above the dew point of the air.

Mixing the components
The mixing ratio is 6 : 1 (resin : cure) by volume. The thinner OH 00 can be added 0 - 5 % (OH 00) (airless spray). If used conventional spray the paint should be thinned to Din Cup 4 viscosity 20 - 25 s. The resin part and the cure are stirred mechanically before application. Add a cure to a resin in a correct mixing ratio and stir thoroughly down to the bottom. Minimum stirring time is 5 minutes. Insufficient mixing or incorrect mixing ratio will result in uneven drying of the surface and weaken the properties of the film. The thinner will be added to the ready mixture. The pot life of mixture is 3 hours from the mixing. There is no visible pot life so the time has to be checked with a clock. After three hours the mixture is not applicable for use.

Method of application
Use an airless spray, conventional spray or electrostatic spray. **In order to ensure the best possible performance of the product, it is recommended that the paint is at room temperature (> 20 °C) before the application.** With airless spray use 200 Mesh (red) spray gun filter and a nozzle tip of 0.009” - 0.013” orifice. The spray angle depends on the object to be painted.

To avoid solvent contamination of the water-borne paint the spraying equipment has to be conditioned before use. All equipment containing solvents in the pump, hoses and gun have to be thoroughly cleaned. If the application equipment is made of stainless steel, designed for and only used for application of water-borne coatings, there is no need for this cleaning procedure.

If the spraying equipment has been used for paint solvent-borne paints, cleaning before spraying:
Circulate thinner OH 17 through the equipment and hoses, then thinner OH 04/OH 13 before fresh clean water.
Cleaning after spraying:
Clean the equipment and hoses with water. Then circulate thinner OH 04/OH 13 and finally thinner OH 17.

Cleaning of the spraying equipment when it is only used for paint water-borne paints:
1-component spraying equipment: Clean the equipment and hoses with water, if needed OH 04/OH13 and OH 17. After cleaning with OH 17, rinse the spraying equpment with OH 04/OH 13 and finally with fresh water.
2-component spraying equipment: Ask instructions from Nor-Maali Oy’s sales department.

Ensure the good ventilation during the application and drying time. (Note that evaporated water is lighter than air.)

Storage and shelf life
The product must be stored in original sealed containers at temperatures from 5 °C to 30 °C. **The product should not freeze.** The storage conditions are to keep the containers in a dry, well ventilated space away from the source of heat and ignition. When stored as described above, the unopened component A will keep up to 6 months and unopened component B to 1 year from the date of manufacture. The manufacturing date found in the label is also the batch number of the paint.

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. The product is intended for professional use only. If there are deviations in the different language versions of the technical data sheets, the English version applies.