Hygiene coating for internal and external applications to provide resistance towards the growth of bacteria, fungi, algae and yeast.

Uses

Provides resistance towards the growth of bacteria, fungi, yeast and algae. Typical areas of application include:

- External coating for structures, in moist and humid conditions.
- Wet areas: Kitchens, bathrooms, shower rooms
- Pharmaceutical industries
- Restaurants
- Hospitals
- Food and beverage processing / storage areas
- Dairy industries
- Sports centers
- Animal husbandry
- Domestic situations
- Cold storage areas

Advantages

- Resistant to the growth of bacteria, fungi, yeast and algae
- Non-toxic - free from traditional copper compounds and organo-mercurial actives
- Leach and photo resistant
- UV stable - will not fade or deteriorate in sunlight
- Excellent service life - resistant to chlorides and sulphate ions plus a wide range of chemicals
- Resistant to defacement
- Biocidal as well as biostatic (see table at the end of this document)
- Range of colours
- Fast application - Single component
- Matt finish
- Resistant to sub-zero and high humidity conditions
- Environment friendly - no VOC’s

Description

Nitocote HEX is a high quality water based, single component, hygiene coating based on aliphatic polyurethane-acrylic hybrid polymer dispersion. The coating contains synergising blend of biocides, which imparts high level of resistance towards the growth of bacteria, fungi, algae and yeast.

It is UV resistant and is suitable for internal and external areas.

Specification

Hygiene coating shall be Nitocote HEX, based on polyurethane-acrylic hybrid polymer dispersion and synergising combination of biocides. The coating shall be resistant to the growth of bacteria, fungi, algae and yeast. It should be resistant to UV and suitable for external applications.

Nitocote HEX should be applied to achieve a minimum dry film thickness of 200 microns.

Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>: 1.3</td>
</tr>
<tr>
<td>Solids content</td>
<td>(by wt.) : 53%</td>
</tr>
<tr>
<td></td>
<td>(by vol.) : 43%</td>
</tr>
<tr>
<td>(ASTM D1644)</td>
<td></td>
</tr>
<tr>
<td>Surface drying time</td>
<td>: 35-40 mins @20°C</td>
</tr>
<tr>
<td></td>
<td>10-15 mins @ 35°C</td>
</tr>
<tr>
<td></td>
<td>4 - 6 mins @ 45°C</td>
</tr>
<tr>
<td>Complete cure</td>
<td>: 7 days @ 25°C</td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>: Fully resistant salt solutions</td>
</tr>
<tr>
<td></td>
<td>dilute acids and alkalis</td>
</tr>
<tr>
<td>Resistance to 100% humidity</td>
<td>: Intact</td>
</tr>
<tr>
<td>UV resistance</td>
<td>: Excellent</td>
</tr>
<tr>
<td>Freeze thaw resistance</td>
<td>: Resistant</td>
</tr>
<tr>
<td>Biological Resistance</td>
<td></td>
</tr>
<tr>
<td>Bacteria</td>
<td>Bacillus subtilis</td>
</tr>
<tr>
<td></td>
<td>Desulfovibrio desulfuricans</td>
</tr>
<tr>
<td></td>
<td>Enterobacter aerogenes</td>
</tr>
<tr>
<td></td>
<td>Escherichia coli</td>
</tr>
<tr>
<td></td>
<td>Proteus mirabilis</td>
</tr>
<tr>
<td></td>
<td>Pseudomonas aeruginosa</td>
</tr>
<tr>
<td></td>
<td>Pseudomonas fluorescens</td>
</tr>
<tr>
<td></td>
<td>Staphylococcus aureus</td>
</tr>
<tr>
<td></td>
<td>Streptococcus faecium</td>
</tr>
<tr>
<td>Yeast</td>
<td>Candida albicans</td>
</tr>
<tr>
<td></td>
<td>Pityrosporum ovale</td>
</tr>
<tr>
<td></td>
<td>Rhodotorula spp.</td>
</tr>
<tr>
<td></td>
<td>Saccharomyces cerevisiae</td>
</tr>
</tbody>
</table>

Nitocote HEX
**Fungi**
- Aspergillus spp.
- Alternaria spp.
- Aureobasidium pullulans
- Cladosporium
  - cladosporides
- Cladosporium herbarum
- Fusarium spp.
- Mucor spp.
- Penicillium funiculosum
- Paecilomyces variotii
- Phoma violacea
- Trichoderma viride
- Trichophyton
  - mentagrophytes

**Algae**
- Anacystis montana
- Chlorococcum tetrasporum
- Gloecapsa spp.
- Stenotrichospygium
- Oscillatoria tenuis
- Pleurococcus spp.
- Scenedesmus vacuolatus
- Scytonema hofmanii
- Stichococcus bacillaris
- Synechocystis minima
- Trentepholia spp.

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### Instructions for use

#### Surface preparation

All surfaces must be clean and free from laitance, dirt, dust, oil and grease. Incase of porous substrates, spray liberal quantity of water on the substrate, prior to commencement of application.

#### Priming

**Internal application**

Priming is not required for internal applications. Saturate the substrate with copious amount of potable water 15mins prior to application in order to achieve strong bonding.

**External applications**

Prime substrate with Dekguard Primer DG. The depth of primer penetration and coverage are determined by substrate profile, porosity and general condition.

Any areas of glass should be masked. Plants, grass, joint sealants, asphalt and bitumen-painted areas should be protected during application.

The primer is best applied by using portable spray equipment e.g. knapsack-type. A uniform surface appearance (sheen) should be apparent when the required rate of application is achieved. If any matt, porous patches remain, then a further application of Dekguard Primer DG should be made. Ensure Dekguard Primer DG is used within its open time of 48hours @ 20°C.

If in any doubt regarding substrate priming, contact the local Fosroc office.

#### Mixing

The contents should be thoroughly stirred to disperse any possible settlement.

#### Application

**Hand application**

Achieved by brush or roller.

Apply at a rate of 0.2 - 0.25 litres per square meter per coat to achieve a minimum wft of 200 - 250 microns. Apply the second coat at right angles to the first coat after the first coat has been cured and before 24hours.

**Spray application**

Faster rates of application are possible using airless spray equipment. Contact the local Fosroc office prior to application for technical advice.

#### Repairs

Any damaged areas can be readily overcoated to restore the membrane continuity. The surface is to be properly prepared using emery cloth to rub down the surface to provide a key and is to be made dust free, prior to product application.

#### Cleaning

Nitocote HEX can be removed using only clean water, whilst still damp. If left to dry, then use a scourer.

#### Limitations

Application should not commence below 10°C or above 50°C. Do not apply on running or standing water or when there are chances of rain.

Do not use for immersed conditions.
Fosroc Nitocote HEX

Estimating

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitocote HEX</td>
<td>10 litre pails</td>
</tr>
<tr>
<td>Dekguard Primer DG</td>
<td>20 litre pails</td>
</tr>
</tbody>
</table>

Coverage

<table>
<thead>
<tr>
<th>Product</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitocote HEX</td>
<td>2m²/litre (2coat application)</td>
</tr>
<tr>
<td>Dekguard Primer DG</td>
<td>4m²/litre</td>
</tr>
</tbody>
</table>

Note: The coverage figures quoted are theoretical, and based upon application to a properly prepared substrate. Since application conditions vary greatly, due to substrate porosity, quality of surface preparation, application thickness and wastage factors, the on-site figures may vary from those shown above.

Precautions

Health and safety

Nitocote HEX should not come in contact with skin or eyes, nor should they be swallowed.

Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams such as Kerodex Antisolvent or Rozalex Antipaint provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap and water - do not use solvent.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed seek medical attention immediately - do not induce vomiting.

For further information, please consult the Material Safety Data Sheet for Nitocote HEX.

Fire

Nitocote HEX is non flammable.

Storage

Shelf life

Nitocote HEX has a shelf life of 12 months, when stored in warehouse conditions below 25ºC.
Fosroc Nitocote HEX

Additional information

Hot weather working practices

Whilst the performance properties of Nitocote HEX at elevated temperatures are assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperatures above 35ºC, the following guidelines are adopted as a prudent working regime:

(i) Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.

(ii) Keep application equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.

(iii) Try to eliminate application in the middle of the day, when ambient temperatures will be excessively high.

(iv) Ensure that there are sufficient operatives available to complete application within the pot life of the material.

(v) Have a ready supply of Fosroc Solvent 102 available for immediate cleaning of tools after use.

Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All Fosroc datasheets are updated on a regular basis. It is the user’s responsibility to obtain the recent version.

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† See separate data sheet