



THE CARBON NANOTUBE SPECIALIST

NANO-ENGINEER YOUR FUTURE

Ref: **STATICYL™** –17st December 2008 - V05

STATICYL™ - Product Data – Antistatic or Electrical Conductive Coating

General information

Description

STATICYL™ is a newly developed product range exhibiting exceptional anti-static and electrical conductivity properties, thanks to the incorporation of Carbon Nanotubes in a Thermoset matrix. The Carbon Nanotubes have been specifically for this purpose by Nanocyl, a major global Carbon Nanotubes player.

Application

Paint used to obtain ESD or electrical conductivity of the substrate

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Properties and storage of different components

STATICYL™ is a two component silicone resin system with a 1/1 mix ratio.

| STATICYL™ | VISCOSITY AT 25 °C | WAY TO PROCESS |
|-----------|--------------------|-------------------------------------|
| NC 11X | Max. 4000 cP | Spray paint, brush paint, injection |

Storage conditions:

- temperature : 5 – 40 °C
- closed container

Color : Black

Density : 1g/ml

Stability:

The table below gives the shelf life of the two components (part A and part B) of the product.

- Part A:

| STATICYL™ | STORAGE CONDITIONS | STABILITY |
|-----------|--|--------------------|
| NC 11X | Between 5 and 40°C in closed container | More than one year |

- Part B:

| STATICYL™ | STORAGE CONDITIONS | STABILITY |
|-----------|--|--------------------|
| NC 11X | Between 5 and 40°C in closed container | More than one year |

Processability:

The table below gives the duration within the product keep his initial viscosity. STATICYL™ 1115 is available in different curing times depending on your request:

| STATICYL™ | POT LIFE TIME AT 25 °C |
|-----------|------------------------|
| NC 111 | Few minutes |
| NC 112 | Ca. 30 minutes |
| NC 113 | Ca. 2 hours |

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Adhesion primer for STATICYL™ NC 11X

The adhesion primer selection is based on the substrate to be coated. The table below shows the primers to be used for different substrates. In some case, no adhesion primers are required (for example : open cell foam). For any other substrate or question related to adhesion of STATICYL™ NC 113, please ask our technical assistances.

| PRIMER | SUITABLE SUBSTRATES |
|--------|--------------------------|
| P1 | Metals, glass, Epoxy, PS |
| P2 | PVC, Wood |
| P3 | PMMA |

Storage conditions:

- temperature : 5 – 40 °C
- closed box and light protection
- Light sensitive and moisture sensitive

Processing conditions

Mixing conditions

The mix ration (pbw: part A/part B) is 1/1 and it can be mix by any classical mix process.

Coating conditions

- Clean the surface (e.g. solvent)
- If necessary, apply the adhesion primer through impregnated sponge or related
- Let dry the surface around 30 minutes (preferably at 24 °C and 50% of moisture)
- Mix the two components of the STATICYL™ NC 113 in the indicate ratio
- Apply the STATICYL™ mixture (brush paint, spray, etc.)
- Let dry 24 h at room temperature

Electrical properties of the cured coating

The last number of the STATICYL™ gives the decade of the surface resistivity in $\Omega \cdot \text{cm}^2$.

| STATICYL™ | SURFACE RESISTIVITY ($\Omega \cdot \text{CM}^2$) |
|-----------|--|
| NC 113 | $\leq 10^5$ |

Measurements are obtained with SRM 110 from the society Wolfgang Warmbier in accordance to DIN EN 100 015/1 and IEC 61340-4-1.

Other data are available on demand

Other properties of the cured coating

Final Aspect: Solid, black
 Density at 25 °C: 1 g/ml

Other properties such as hardness (shore A), scratch resistance, adhesive strength of the coating to the substrate, surface energy, adhesive strength of the dirt to the STATICYL™ coating... are available on demand

For technical assistance, sales or further information, please contact us:

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