

# + SIGRATHERM® SC Coating NG

*Protection of carbon and graphite rigid felts*

SC Coating NG is a water-based suspension of carbon-based fillers and binders.

## Application

Protection of SIGRATHERM carbon and graphite rigid felts for edges and surface with SC Coating NG. The coating can also be applied on-site.

## Processing

Before and during use, the coating fluid should be thoroughly stirred several times to ensure that it is applied in a homogeneous state.

The mixture can be diluted as required by stirring in between 5 and 10% of its own weight of water. Application should be carried out with a brush and the mix applied as thinly as possible. At least two coats should be applied to give a uniform coating thickness.

Dry each application in air for one hour or alternatively in a drying oven for 15 minutes at 90 °C (194 °F).

Finally the following heating cycle should be used:

RT up to 90 °C (194 °F)	—————>	30 minutes
Hold at 90 °C (194 °F)	—————>	60 minutes
90 °C (194 °F) up to 130 °C (266 °F)	—————>	60 minutes

This is best carried out in a drying furnace or, for larger assemblies, directly in the high-temperature furnace.

After this heating cycle the applied coating can be heated up to its normal operating temperature in an inert gas atmosphere. Carbonization of the coating starts at 300 °C (570 °F). Pyrolysis of the coating agent is completed at approximately 1600 °C (2900 °F). During pyrolyse process vapors arising and may condense on cold section of the furnace and micro cracks on the coating surface can appear.

## Thermal stability

The dried coating is resistant up to 130 °C (266 °F). The carbonized coating is resistant up to about 250 °C (480 °F) in an oxidizing atmosphere and up to approximately 2200 °C (4000 °F) in a reducing atmosphere.

## Performance

If applied uniformly, the coating provides the felts with a solid skin that gives protection against abrasion in high-temperature furnaces and avoid fiber particles in the furnace chamber.

## Chemical properties

When processing is completed, the coating consists virtually of pure carbon. The chemical resistance is the same as that of carbon and graphite.

## Storage life

If stored at room temperature sealed or resealed in its original containers, SC coating NG has shelf life of one year.

## Forms supplied

Plastic cans in 1 kg and 5 kg.

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