

## Sol-Gel-Nanocomposite coating

### Sol-Gel-Nanocomposite type N(N) 2

#### Properties

- Energetically neutral surface
- Easy-to-clean coating
- Minimal coating thickness
- Very high temperature stability
- Hard and abrasion resistant surface
- Diffusion barrier versus metal ions

Physical properties	
Non-stick	good
Contact angle to water	70-90°C
Contact angle to hexadecane	ns
Heat resistance	up to 500°C
Colour	colourless, transparent

Chemical resistance	
Solvents	excellent
Organic acids and oils	good
Inorganic acids	partly
Inorganic bases	weak

Substrate materials	
Stainless steel	yes
Aluminium	yes
Non-ferrous metals	partly
Glass	yes
Plastics	partly

Coating process	
Coating thickness	700nm – 2µm
Dipping process	yes
Spray application	yes
Sintering process	yes
Maximal thermal substrate stress	120 – 550°C

#### Fields of application

- **Diagnostics:** Temperature resistant, glass-ceramic-like coating for stainless steel needles. Improved cleaning properties on stainless steel, smooth surface
- **Chromatography:** Diffusion barrier versus metal ions also at high temperatures
- **Industry / general:** Glass-ceramic-like coating on SiO<sub>2</sub> basis. Abrasion protection layer
- **Remark:** By means of the sintering process, the energetic surface can be influenced. Higher temperatures result in higher surface tensions (more hydrophilic)

The information on the datasheet is based on data from our suppliers, feedback from customers and our research. The information is non-binding and for information purpose only. Specific, technical and chemical investigations are gladly carried out according to our customers' specifications.