

Sol-Gel-Nanocomposite coating

Fluorinated Sol-Gel-Nanocomposite type N(H) 2

Properties

- Highly hydrophobic and oleophobic 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	very good
Contact angle to water	approx. 110°
Contact angle to hexadecane	> 65°
Heat resistance	up to 290°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 – 1µm
Dipping process	yes
Spray application	partly
Sintering process	yes
Maximal thermal substrate stress	120 – 350°C

Fields of application

- **Diagnostics:** Easy-to-clean of hollow needles, high reduction of carry-over (blood, peptides, proteins etc.), improvement of the drip off properties, improvement of lifetime
- **Chromatography:** Diffusion barrier versus metal ions, coating of capillaries with small inner diameters, coating of needles for analysis
- **Industry / general:** Easy-to-clean surfaces, dirt protection layer, improvement of lifetime of sight glasses and in plastics processing, improvement of the drip off properties for small volumes (i.e. oil)

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.