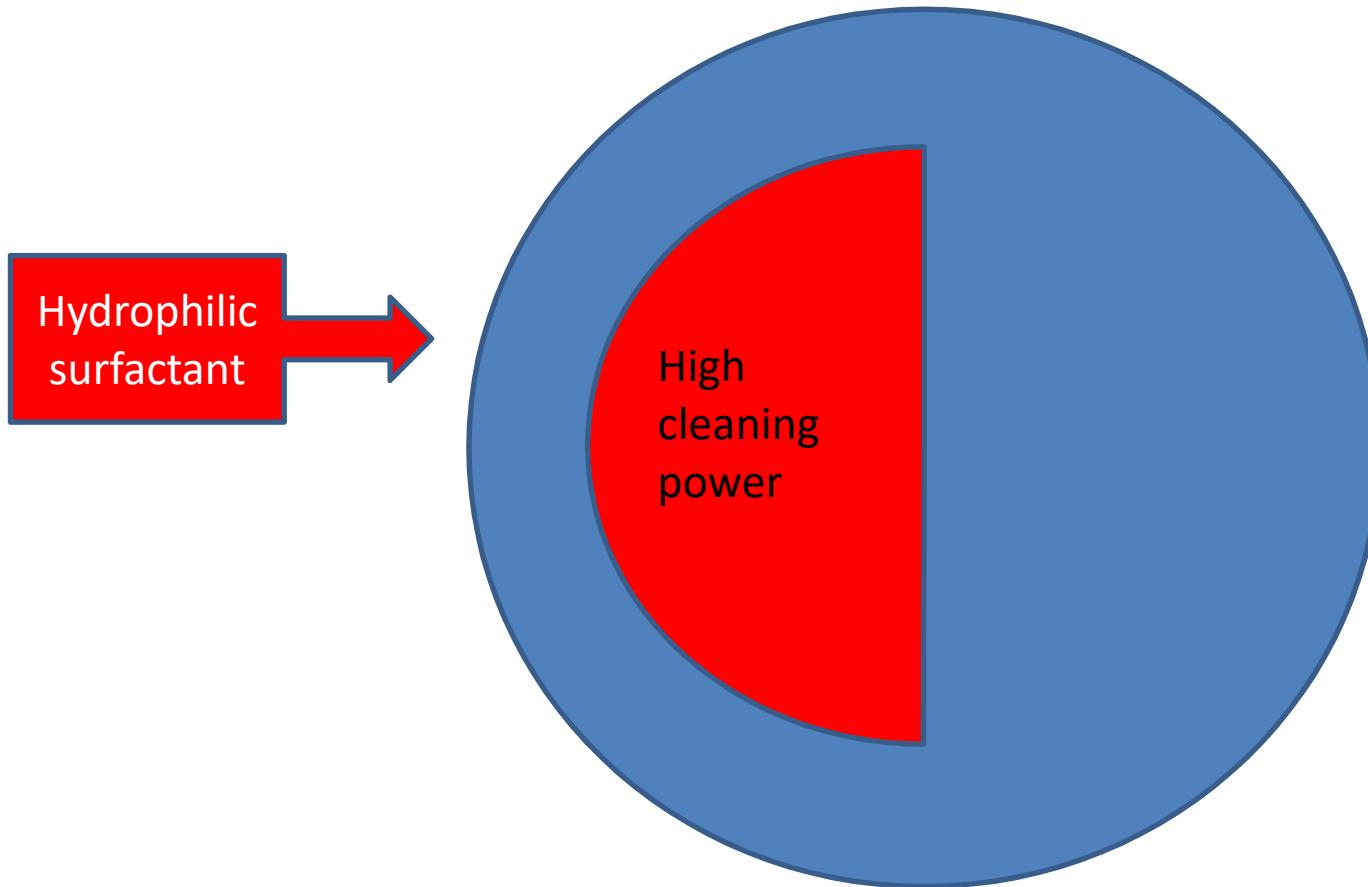


Mode of action  
The neutral LoClean cleaner  
Using the example  
of  
LoClean N plus

>>> What makes this so effective?

reinwerk solutions

---



**Hydrophilic high-performance  
surfactants**



**Surface tension of the water ↓**



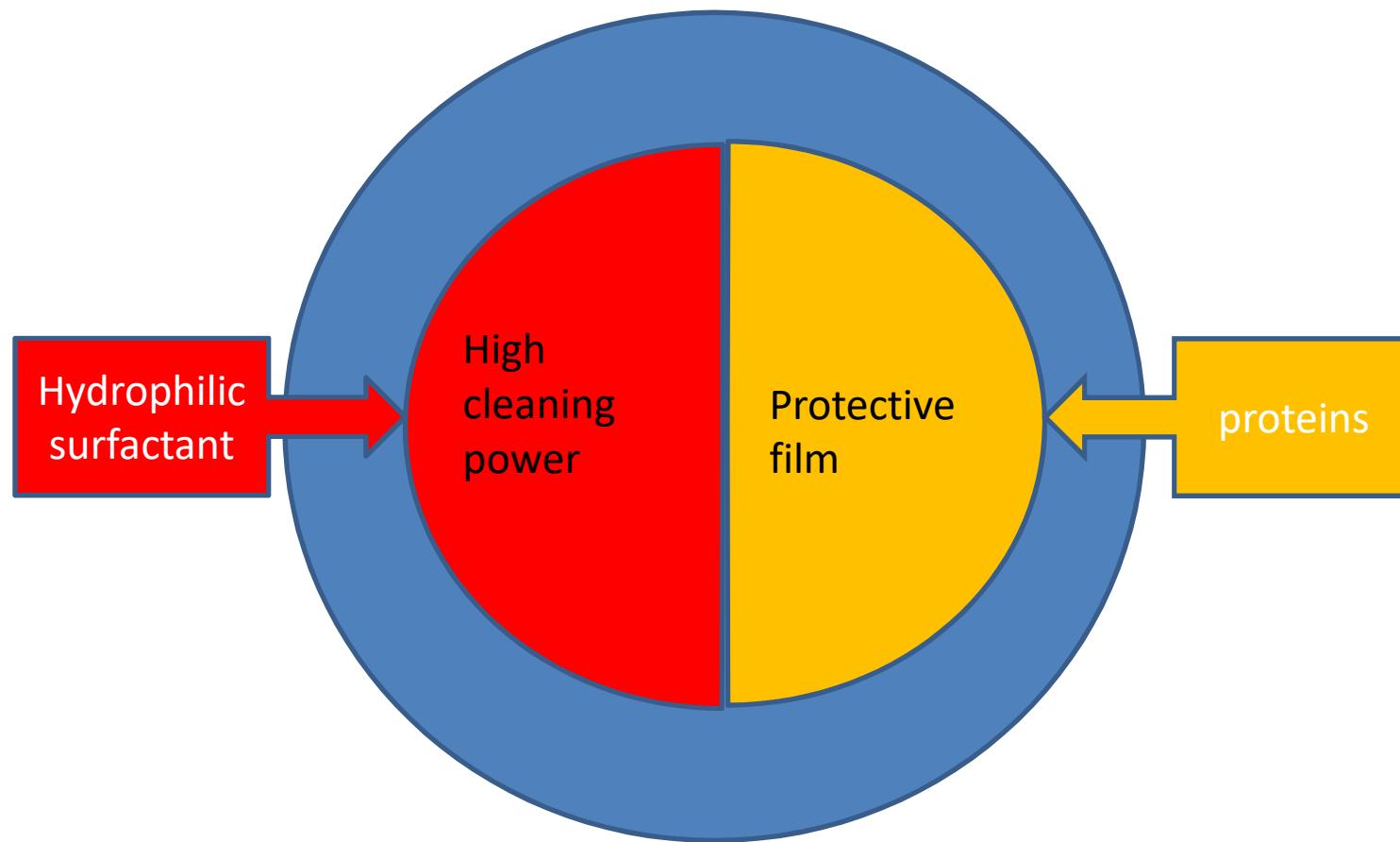
- ▶ Water penetrates into the smallest crack (wetting)
- ▶ Water penetrates the dirt (swelling)
- ▶ Dirt particles are crushed (dispersion)
- ▶ Water infiltrates the dirt and displaces it
- ▶ Dissolved dirt particles are enveloped (emulsion)

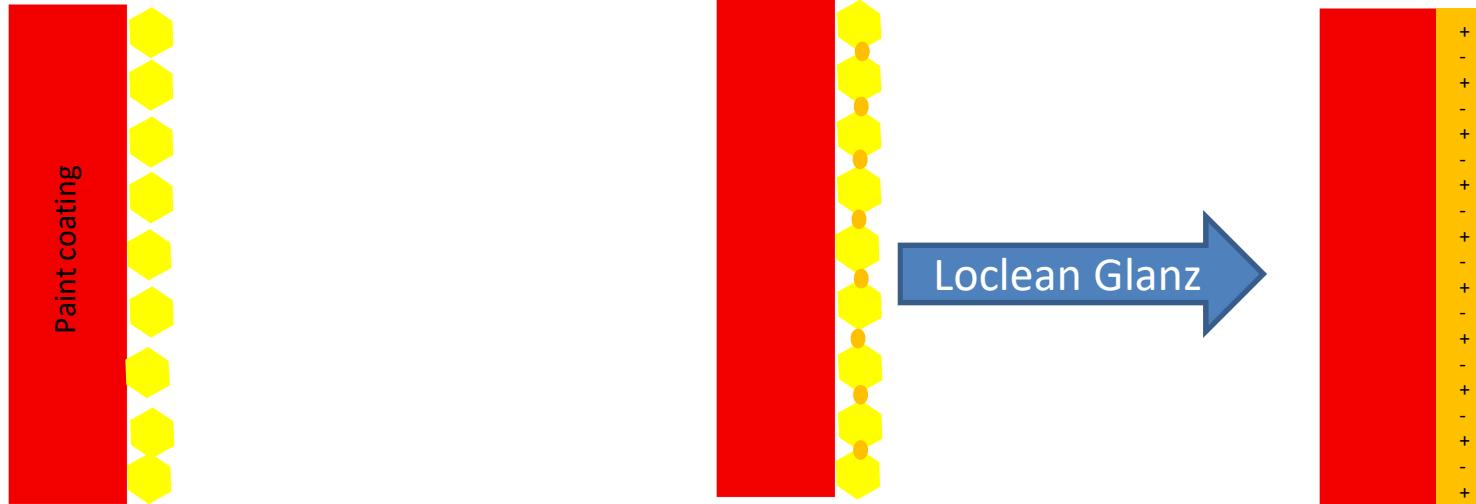


>> >> What is this so effective?

reinwerk solutions

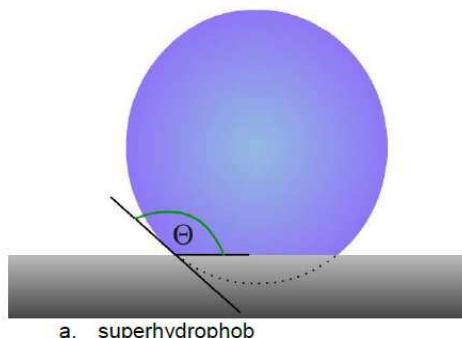
---



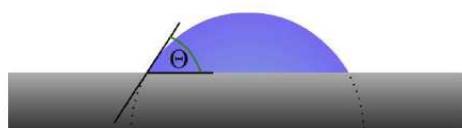


- LoClean N plus contains high molecular weight protein molecules.
- Protein molecules are magnetically attracted by the surface.
- Protein has high adhesion to the surface.
- Protein molecules become cross-linked to form an extensive thin film.
- Through the action of LoClean Glanz, the film is stabilised.
- The film remains durable for several weeks.
- Because it originates from amino acids, the film has many positive and negative surface charges.
- Because of the many charges, the surface has a strong hydrophilic effect.
- A thin film of water binds to the surface (even in the dry state), and this acts as a lubricating layer.

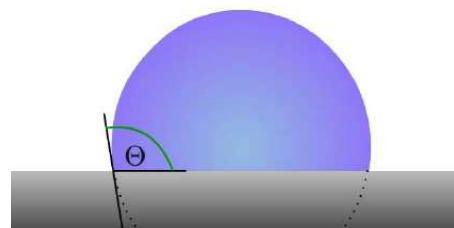
hydrophilic = hygroscopic, water-loving



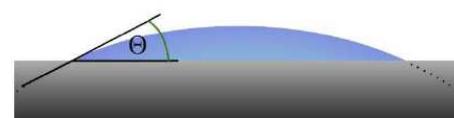
a. superhydrophob  
es kommt zu fast keiner Benetzung  
 $\Theta > 140^\circ$



c. hydrophil  
es kommt zu einer guten Benetzung  
 $80^\circ > \Theta > 20^\circ$



b. hydrophob  
 $\Theta > 80^\circ$



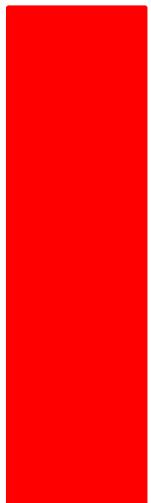
d. es kommt einer sehr guten Benetzung  
 $\Theta < 20^\circ$   
Super-hydrophilic

Hydrophilic surface

Same effect as hydrophilic surfactants

Some cleaning agents can be reduced.

Savings on cleaning agents



Paint does not have a smooth surface. It is rough and partly jagged.

Dirt particles remain in the recesses.

Additional dirt particles are pressed into these recesses by the brush.

The protein film fills in the recesses and smooths the surface.



Dirt glides on the protein layer like skates  
glide on ice



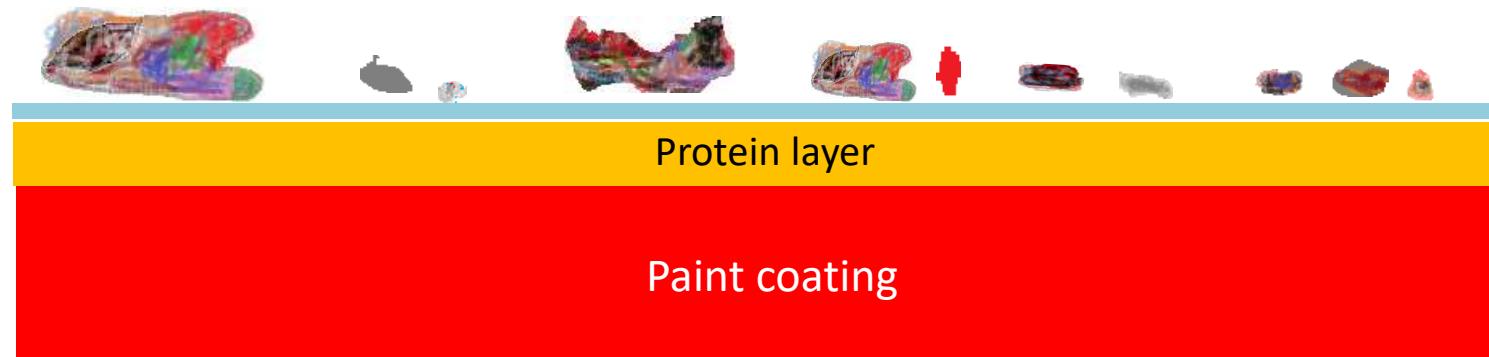
Reinwerk easy-to-clean effect

Consumption of cleaning agents ↓

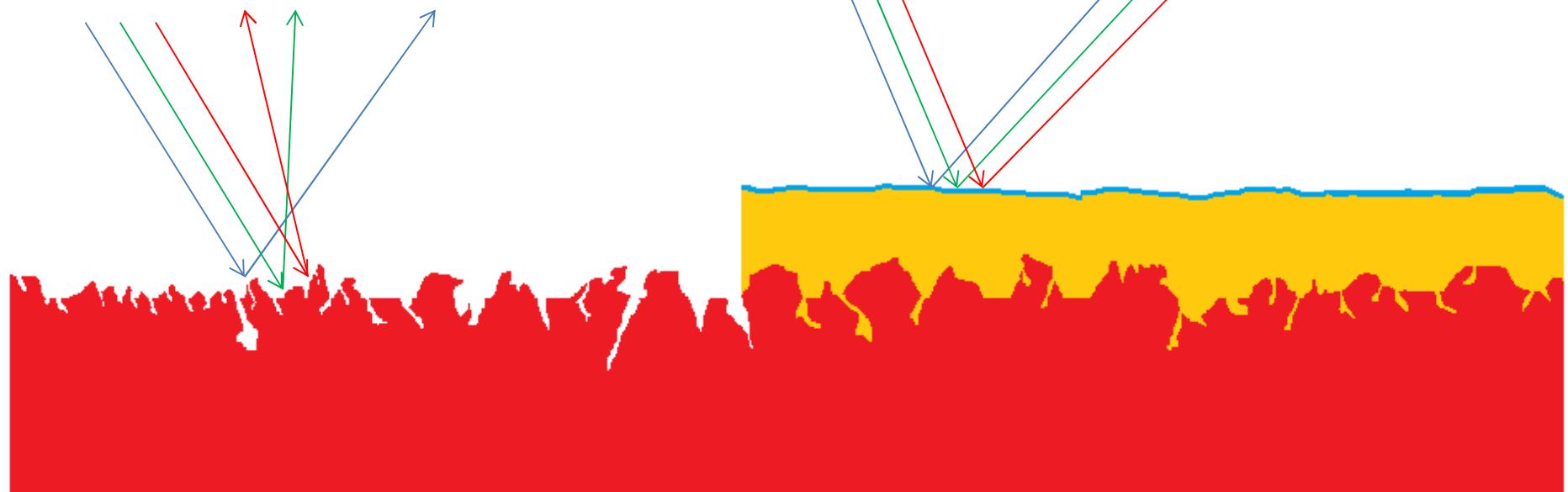
- The protein layer is very resistant and resistant.
  - Resistant to most solvents (e.g. nitro, acetone, aromatics, and ethers)
  - Organic substances (e.g. bird droppings, insect carcasses, and tree resins) or corrosive
  - salts do not penetrate through to the paint layer.

► The LoClean neutral cleaners are neutral and free of aggressive agents.

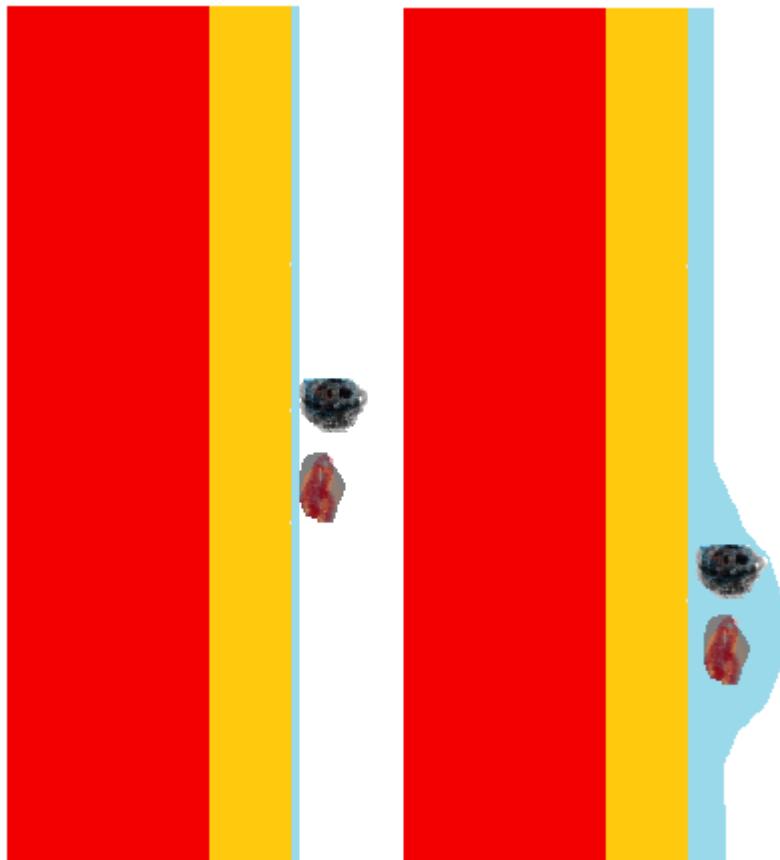
► The dirt particles moving through the brush glide on the protective layer and cannot scratch the paintwork.



The paint has a  
matte appearance



Paint shines



Rainwater makes the water film stronger.  
Dirt is lifted by the water and washed off.



Self-cleaning function



Extended intervals

LoClean N plus in combination with LoClean Glanz:

1. Reduction in the consumption of cleaning agents leads to resource savings.
2. Proven savings (more than 50%) in costs for car washes and water treatment.
3. The Reinwerk easy-to-clean® results in faster cleaning with less brush wear.
4. The self-cleaning function extends intervals between washing.
5. Cleaners are free of aggressive substances. Employees, vehicles, and washing systems are therefore optimally protected.
6. Vehicles are clean and shine.
7. The protein layer protects the vehicle surface from aggressive environmental influences.
8. Graffiti cleaning is easier. Less danger of damage to coating
9. Optimal composition for biodegradable waste water treatment..