

**NOVOTEC<sup>®</sup>**  
Clean Technology



## Cool and lubricate with NOVOTEC<sup>®</sup> CL800

- The cutting edge performance additive for water-miscible metalworking fluids
- Efficient, economical, skin and environmentally friendly

**GELITA**  
Improving Quality of Life

# Proteins with added value from GELITA

Proteins are a key performance factor in complex biological systems such as the human body, where they lubricate joints, stabilize bones, and protect the skin. GELITA has transferred this protein know-how to add value to diverse industrial applications. In these complex industrial applications, these novel proteins marry health and environmental friendliness to exceptional industrial benefits – offering significant added value compared to conventional solutions.

## ! Experience the NOVOTEC® effect!

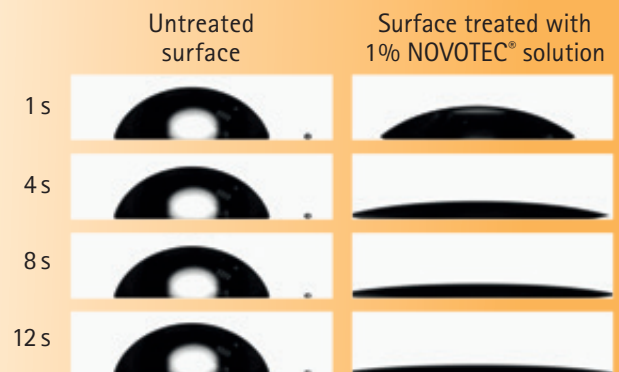
NOVOTEC® proteins attach themselves to the most varied of surfaces. On these surfaces, the proteins combine to form stable, resistant hydrating layer. As water hits the layer surface, the proteins attract the water molecules and a closed hydrophilic protective layer results. In practice, this protects surfaces and also improves separating, lubricating and cooling production steps. NOVOTEC® protein solutions simplify, accelerate or optimize processes, improve quality, reduce costs and promote high environmental and health compatibility.

## The NOVOTEC® benefits

- Process, quality, time and cost advantages in technical applications
- Sustainable natural product that is biodegradable and both environmental and operator friendly
- Clean label

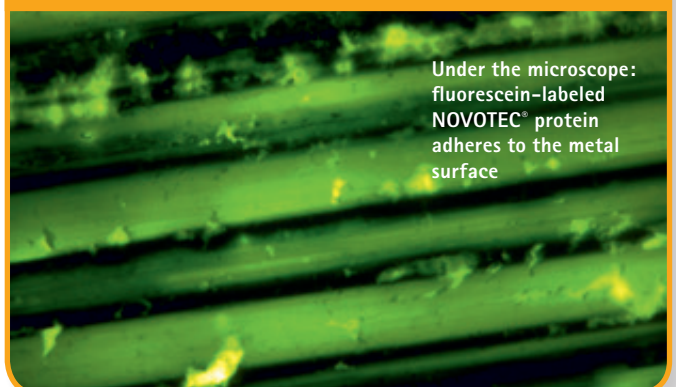


The NOVOTEC® effect: NOVOTEC® proteins attract water.



Wetting behavior of a water droplet on a steel surface (cross sectional view).


NOVOTEC® forms protective hydrophilic layer.





# NOVOTEC® CL800 sets new standards in the field of metalworking fluids

A metalworking fluid with excellent performance that is sustainable, environmentally and operator friendly – with NOVOTEC® CL800 from GELITA, this vision becomes reality. The innovative protein-based liquid concentrate is an ideal performance additive or base component in water-miscible cooling lubricants.

 Lubricate and cool more efficiently with the NOVOTEC® effect

NOVOTEC® CL800 consists of natural, polyfunctional protein molecules and was specifically designed to adhere to surfaces like steel, stainless steel and aluminum etc. There they form lubricating layer of hydrated protein chains that lubricate surfaces efficiently while simultaneously ensuring a strong cooling effect.

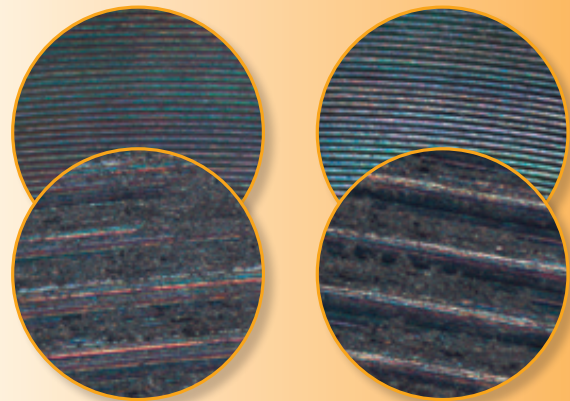
The use of NOVOTEC® CL800 promotes an optimal combination of lubrication and cooling for a variety of different surfaces. The end result is more efficient heat dissipation during the metal processing and higher surface

Developed and tested on state-of-the-art equipment in GELITA's laboratories



Comparison of surfaces after processing with cooling lubricants

Piston surface diameter 100 mm




Piston surface diameter 60 mm

Conventional coolant with 5% oil leaves residues

Clean surface after use of coolant with 2% NOVOTEC® CL800

quality of the machined workpieces. The manufactured products can also frequently be further processed directly without intensive cleaning. This shortens processing times and saves cleaning costs.

 Naturally health-friendly

NOVOTEC® CL800 is made of natural collagen. This innovation by GELITA not only enables high-performance cooling lubricants, but also improves skin friendliness and keeps cleaning requirements to a minimum.

**!** Cool and lubricate with the NOVOTEC® effect

The main benefits of NOVOTEC® CL800:

- Improved wetting and cooling
- Optimized surface quality
- Simple further processing thanks to clean surfaces
- Simplified machine maintenance
- Free of mineral oil, as produced on a natural basis
- Environmentally friendly
- Skin-friendly alternative to conventional products
- Greatly reduced risk of allergies
- Natural bio-polymer



**NOVOTEC®**  
the smart solution



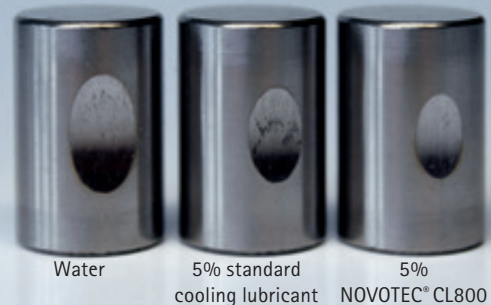
- Time and cost benefits
- Operator friendly
- Sustainability and environmental friendliness

NOVOTEC® CL800 application, low foam even at high pressure



Test cylinder after a run on Reichert friction and wear tester

Fluid used:



Water

5% standard cooling lubricant

5% NOVOTEC® CL800

Measurable increases in efficiency in daily operation



**NOVOTEC® CL800**  
The performance additive for water-miscible metalworking fluids

