



NOVOTEC®
performance additives

Your key to added values for
industrial applications

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

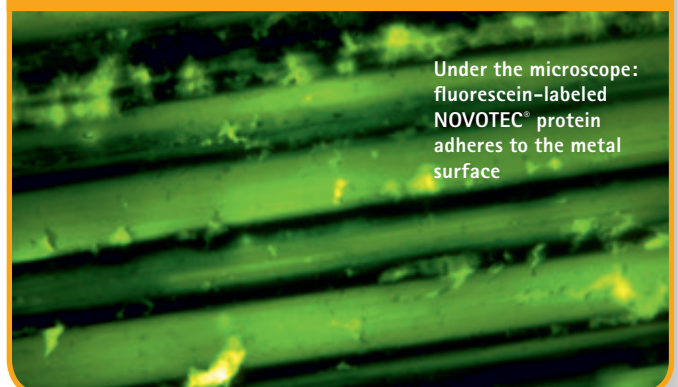


The NOVOTEC® effect: NOVOTEC® proteins attract water.

	Untreated surface	Surface treated with 1% NOVOTEC® solution
1 s		
4 s		
8 s		
12 s		

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

NOVOTEC® forms protective hydrophilic layer.



Under the microscope: fluorescein-labeled NOVOTEC® protein adheres to the metal surface



Cool and lubricate with the NOVOTEC® effect NOVOTEC® CL800 for metalworking fluids



NOVOTEC® CL800 is a powerful additive for water-miscible metalworking fluids. These functional proteins can fully or partially replace mineral oil or synthetic lubricants and drastically reduce surface wear. While the lubricating oil film in conventional cooling lubricants prevents effective cooling, the NOVOTEC® effect optimizes cooling with a water-absorbing protein layer. Furthermore, with NOVOTEC® CL800, the machined metal parts remain clean and require less time-consuming cleaning.

- Formation of a hydrated protein layer that provides excellent cooling and lubrication
- Reduction of wear and residues
- Helps contribute to an operator friendly metalworking fluid



Clean and protect with the NOVOTEC® effect NOVOTEC® CB800 for detergents and cleaning agents



NOVOTEC® CB800 is a powerful additive for detergents and cleaners. The NOVOTEC® proteins assist in cleaning and simultaneously form a water-attracting protective film on the surface, which simplifies subsequent cleanings (easy-to-clean effect). As a natural protein-based additive, NOVOTEC® CB800 provides the means to reduce the allergenic potential of formulations and significantly improve their skin friendliness.

- The proteins form thin hydrophilic protective layers on surfaces
- Supports simpler and more effective cleaning at mild pH values
- Longer cleaning intervals – thanks to the easy-to-clean effect



Cool and release with the NOVOTEC® effect NOVOTEC® CR800 for release agents



NOVOTEC® CR800 is a powerful additive for water-miscible mold release agents. Unlike conventional products, whose main components oil or wax can only be mixed with water with difficulty, NOVOTEC® CR800 proteins are completely water soluble. When applied, they form a water-absorbing film which cools the molds effectively. During the casting process, the proteins are thermally decomposed under controlled conditions, leaving only residues behind that can easily be removed with water. As a result, no cleaning is usually necessary before the further processing of the castings, considerably shortening cycle times.

- Hydrating protein layer for maximum cooling effect
- Shorter cycle times as well as significant savings of water, waste water and chemicals
- Clean surfaces on castings and molds without additional cleaning

! Process surfaces with the NOVOTEC® effect

NOVOTEC® CL800 – cool and lubricate

NOVOTEC® CB800 – clean and protect

NOVOTEC® CR800 – cool and release

NOVOTEC® proteins bind to a variety of metals, glass, and plastic surfaces and form stable hydrophilic protective layers.



NOVOTEC® the smart solution !

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

NOVOTEC® performance additive – hydrophilic rather than hydrophobic.