



Cool and release with NOVOTEC[®] CR800

- The performance additive for mold release agents
- Efficient, economical, skin and environmentally friendly

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!

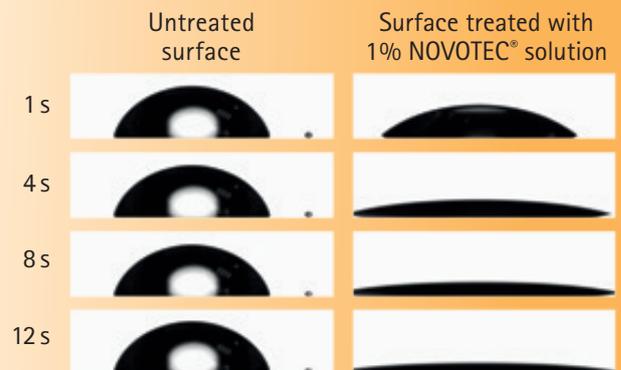
NOVOTEC® proteins attach themselves to the most varied of surfaces. On these surfaces, the proteins combine to form stable, resistant hydrating layer. As water hits the layer surface, the proteins attract the water molecules and a closed hydrophilic protective layer results. In practice, this protects 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

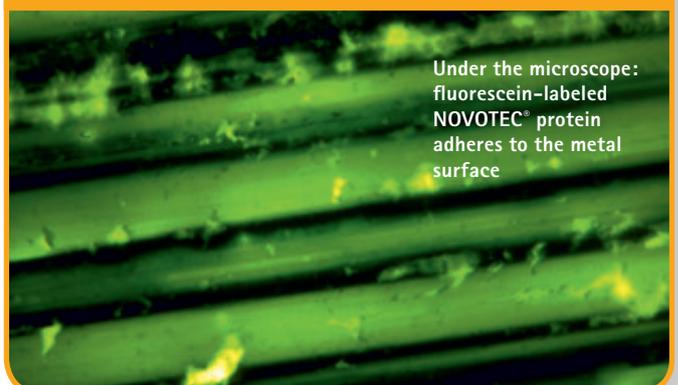


The NOVOTEC® effect: NOVOTEC® proteins attract water.



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

NOVOTEC® forms protective hydrophilic layer.



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

NOVOTEC® CR800 revolutionizes mold release agents

A mold release agent with a high cooling capacity and excellent release that is sustainable, environmentally and operator friendly – with NOVOTEC® CR800 from GELITA, this vision becomes reality. The innovative protein-based liquid concentrate is an ideal performance additive or base component for water-miscible water release agents.

! Cool and release more efficiently with the NOVOTEC® effect

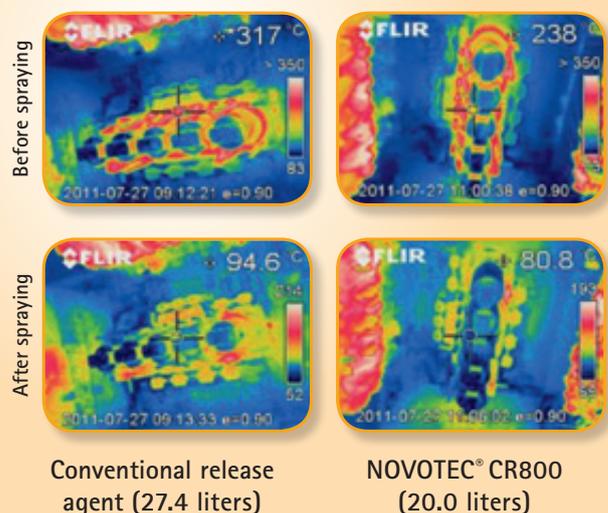
NOVOTEC® CR800 consists of natural, polyfunctional protein molecules and is specifically designed to adhere to steel molds. There they form separating layers of hydrated protein chains that are degraded in a controlled manner when exposed to heat. In this way, NOVOTEC® CR800 ensures highly effective cooling and, with its low residue release, simplifies the production of clean castings.

With conventional release agents, the separating layers are composed of wax or synthetic substances. But these have the

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



NOVOTEC® CR800 cools more effectively than conventional release agents.



Left: Casting process with 1:100 wax free dye lubricant. Right: Casting process with 1:800 diluted NOVOTEC® CR800 but 30% less sprayed water.

disadvantage that they repel the water that is supposed to ensure the cooling of the mold. By contrast, the hydrophilic layers of NOVOTEC® CR800 ensure highly efficient cooling, thus enabling shorter production times. In addition, a controlled thermal degradation of the protein layer occurs during the casting process. As a result, the mold and casting are clean after casting process and do not require extensive cleaning.

! Naturally health-friendly

NOVOTEC® CR800 is made of natural collagen. This innovation by GELITA not only enables powerful cooling with less water, wastewater and release agent, but also makes for efficient production without aggressive chemicals.

! Cool and release with the NOVOTEC® effect

The main benefits of NOVOTEC® CR800:

- High cooling capacity
- Excellent release
- Reduces water consumption, waste water, and production times
- Clean molds and castings without laborious cleaning
- Ideally suited for micro-spray applications
- Greatly reduced risk of allergies
- Natural bio-polymer



NOVOTEC®
the smart
solution

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



Residue-free mold



Clean castings



Significant increase in efficiency in modern die-casting



NOVOTEC® CR800

The performance additive for mold release agents

