



■ BASF

We create chemistry

Proficiency in Surfaces: Optimal Function Superior Protection

**Surface technology
Engineering & Maintenance**

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Customized, Innovative, and Reliable

Our Know-How – Your Success!

The position of BASF as the world's leading chemical company opens up unique possibilities for you – also with respect to coating: as the Technical Center for Polymer and Surface Technology, we are part of the BASF Competence Center Engineering & Maintenance with more than 2,500 employees. Our coatings prove themselves every day during operation at BASF sites.



This makes us the world's sole provider of coating technology that applies its coating systems in its own production plants. As a customer, you, too, profit from this practical experience. The Center for Polymer and Surface Technology continuously advances these solutions in close collaboration with other BASF technical centers, such as BASF's renowned Materials Engineering Department.

As a result you get innovative and safe solutions for coating technology that meet the highest quality standards while offering you the greatest possible safety.

The close collaboration between chemists and engineers in the development of complex processes – the interplay of science and technology – became the foundation of constant success of BASF.

Surfaces in Perfection

Rely on an Experienced Partner

We ask the right questions –
to master all challenges.

Specifically when it comes to coating sophisticated components, there are rarely standards that guarantee sustained safety and reliability. For this reason we give you a solution that is precisely adjusted to your requirements – from the choice of the optimum coating material, to the complete process chain, and all the way to the final coated component that meets all of BASF's quality criteria.

Our focus is on corrosion and wear protection as well as non-stick properties.

You get coating material that is optimally suited to your operating conditions (media, temperature, mechanical stress, diffusion properties, etc.).

And thanks to the optimal choice of coating, you have durable quality, can use more affordable types of steel, and reduce your cleaning cycles.



- The right questions
- Functional finishes
- Customized solutions
- Sustained quality



Optimal Function – Superior Protection

Functionality to Satisfy Supreme Demands

We not only coat complex components but also perform functional coatings – and everything is entirely hand-coated, too.



In this way we ensure lasting optimal function for impellers, agitators, mixing machines, control fittings, sensors, and reaction columns – precisely according to your requirements.

This fluoropolymer-based type of coating (PTFE) with a layer thickness of $< 15 \mu\text{m}$ is also particularly suitable for screws. As non-stick coating it prevents contact corrosion and seizure of screws at temperatures of up to 350°C .

Adjusting the thread dimensions afterwards is not necessary, regardless of the thread geometry. This considerably reduces maintenance work, because the coating allows for loosening the screw connections of threaded flanges as well as high-pressure units without additional effort – regardless of the disassembly cycle.

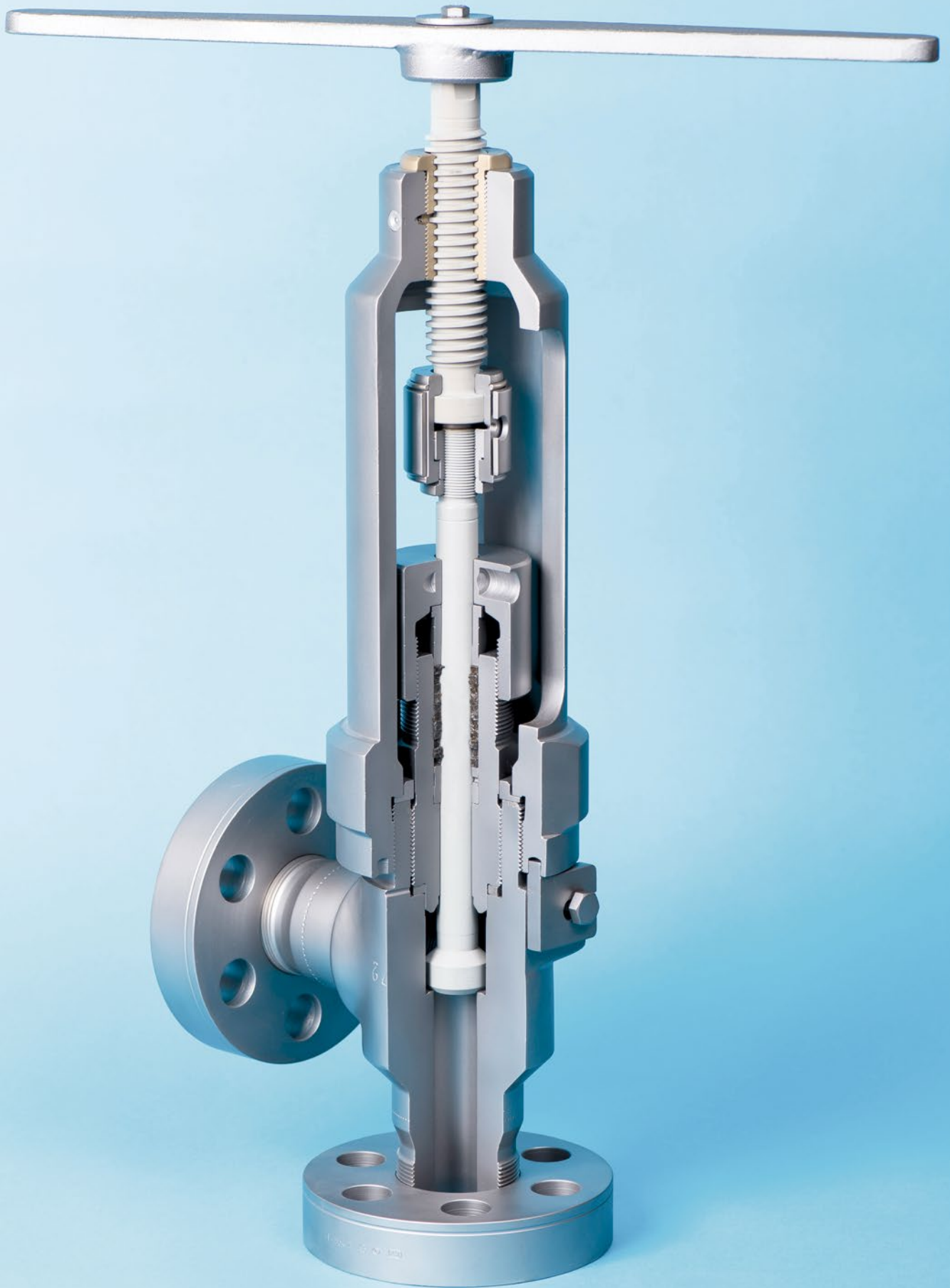


The functional coating contributes to the compliance with new emission limits. By coating the spindle in high pressure valves the friction in the thread, and particularly at the packing gasket, is reduced. Thus, a higher surface pressure can be realized in the packing which results in significantly lower leakage rates. This enables, in many cases, the adherence of environmental targets.

Further, the agitating forces will be reduced. With hand operated valves no lever extension is necessary or the actuating power of automated valves can be lower. Also, in rare operated valves the sticking of the graphite packing at the spindle is avoided.

Key Facts

- Layer thickness $< 15 \mu\text{m}$
- -200°C to $+350^\circ\text{C}$
- pH1 to 14
- No electrostatic charge
- Can be used in oxygen atmosphere



Our Quality – Your Safety

We Are the Partner You Can Trust

Availability and safety of your equipment are crucial factors for you. We give you tested BASF quality you can rely on.



Every component that leaves our factory is visually inspected by one of our experts after the corrosion protection coating has been applied, and then subjected to high-voltage spark testing to make sure the material is pore-free. We master this even when dealing with electrically conductive fluoropolymer coatings.

When it comes to corrosion protection, we walk the extra mile. That's why our layer thicknesses are between 500 μm and 1,000 μm – even when working with such delicate components as level sensors and hose couplings. As a result, their coating is considerably more durable than you typically find on the market – while having the same adhesiveness.

We deliver to you only products that meet our extremely strict quality criteria – because our know-how makes the difference here.

Our Portfolio

Premium Quality – Customized Manufacturing

Our coating systems and application technologies are specifically geared toward corrosion protection and the improvement of non-stick properties of components for chemical production equipment:

Powder coating (EPS method)

- Corrosion protection and optimization of non-stick properties with fluoropolymers (e.g., ETFE, E-CTFE, FEP, MFA, PFA, PTFE) on pipes, vessels, machines, agitators, measurement and control fittings; electrostatically conductive versions in explosive environments also available
- Corrosion protection and non-sticking layers for inspection glasses (E-CTFE, PFA)

Fluidized bed coatings

- Corrosion protection with polyamide (PA11) on pipes for river water and wastewater applications and atmospheric corrosion protection for mesh trays, mountings, and assembly elements
- Splinter protection with polyethylene (transparent PE) for glass components and apparatuses

Spray coatings

- Fluoropolymer-based (FEP, MFA, PFA) non-stick coatings, e.g., for heat exchanger plates, impellers, filters, metal mesh
- Functional coatings, e.g. with PTFE, to avoid seizure and contact corrosion with screw connections
- Baked enameling for tube bundle heat exchangers (phenolic epoxy resin systems)

Thermosetting coatings with two-component systems applied by brushing, rolling, or spreading (can be performed on site in production facilities)

- Corrosion protection for vessels, columns, fan blades, etc.
- Wear-protection coatings
- Repair of surface defects on pumps, impellers, bearing seats, etc. as well as leak sealing



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