

TV-Service – Seeing is believing

BASF in motion

tvservice.basf.com

Annual Press Conference

February 23, 2024

We are working on answers to the pressing questions of the future. Innovative solutions from the chemical industry are the key to a climate-neutral future in many places and are paving the way for climate-neutral chemical production. We will show you our latest products and provide an overview of our Verbund sites worldwide.

Footage material

As the world's leading chemical company, we believe strongly in the emotional appeal of film as a way of making innovations and solutions come alive before the viewer's eyes. Of course, as a journalist you can't be everywhere, but we can help bring you a little closer to our world.

For further information:

Silke Buschulte-Ding, BASF SE Specialist Visual Communication, Film und TV, Brand Consultancy Tel. 0049 621 60 48 387, E-Mail: silke.buschulte-ding@basf.com



1

(01) Offshore wind farm Hollandse Kust Zuid inaugurated Wind turbines



To achieve net zero emissions by 2050, BASF is increasingly replacing fossil fuels with renewable energy and electrifying its processes. For the successful transformation of chemical production, a reliable supply of electricity from renewable sources at competitive prices is key.

This is why BASF concludes long-term contracts for the direct supply of renewable energy and invests in its own production facilities: Together with Vattenfall and Allianz, BASF inaugurated one of the world's largest offshore wind farms – another milestone on the road to climate-neutral production of chemicals.

Together with Vattenfall and Allianz, BASF has inaugurated one of the largest offshore wind farms in the world: Hollandse Kust Zuid. The subsidy-free wind farm with 139 turbines and a total capacity of 1.5 GW will be fully operational in 2024.



(02) The prill tower in the north of BASF's Verbund site Ludwigshafen at blue hour

Aerial shots



Urea (CH_4N_2O) is an organic compound of carbon dioxide (CO_2) and ammonia (NH_3). In 1968, the urea plant as it is known today was built. Urea is a versatile raw material and important monomer in the chemical industry. It is needed in large quantities worldwide, for example for the production of nitrogen fertilizer, for the exhaust gas purifier AdBlue[®], for resins, adhesives and much more.

The 61-meter Prill tower, which is clearly visible from afar, is part of the urea plant built at the Ludwigshafen site in 1968. In it, crystalline urea is converted into spherical granules.

(03) Sharkskin Technology

An airplane as sleek as a shark – equipped with fuel-saving riblet film



Lufthansa Technik equips the aircraft of its airline customers during regular maintenance layovers in the aircraft hangar. Over a period of several days, a qualified team applies the adhesive films according to a precise cutting pattern along the flow course of the aircraft fuselage and the engine nacelles.

In order to equip a Boeing 777 with the fuel-saving surface technology on a large scale, Lufthansa Technik uses the aircraft's regular maintenance idle times. According to a sophisticated design, the film patches are cut to size and attached exactly along the flow course of the fuselage and the engine nacelles. The application of about 2,000 patches is carried out in sections over several days by a trained team. The foil of the riblet film is carefully peeled off by the employees until the adhesive layer is revealed. They then use a rubber squeegee to coat the films firmly, placing around 800 square metres of AeroSHARK riblet film on the Boeing 777F freighter in meticulous manual work.

(04) Sharkskin Technology

With the license to fly – official approval for aviation



Lufthansa Technik is using CFD simulations to determine how drag is reduced by means of the bionic riblet film, among other things. These provide important results, not only for the design of the pattern. This is because before an aircraft type modified with sharkskin is allowed to transport passengers or goods through the air, it needs aviation authority approvals.

Equipping with AeroSHARK changes the aerodynamics of the aircraft. Computational Fluid Dynamics (CFD) is therefore used by Lufthansa Technik to simulate the air currents on the aircraft in detail. The results also provide information on how the airflow around an aircraft sample behaves after being equipped with the functional surface coating in critical situations. The design of the aircraft modification resulting from these considerations is also a direct part of the certification process. It is then meticulously tested by the aviation authorities in a real flight test for the issuance of the supplementary type certificate (STC) for the respective aircraft type. The STC, issued by the aviation authorities, allows Lufthansa Technik to apply the nature-inspired riblet films in series to 777-300ER and 777F aircraft.

(05) Digital transformation of the laboratory: Modern analytics in Ludwigshafen



In chemical research, analytics plays a key role. It helps us understand the composition of raw materials and products and detect impurities. With fast and comprehensive answers, we support our customers. Our new building provides ideal conditions for our work and enables close collaboration with internal partners. Thanks to smart logistics, we deliver timely and comprehensive analysis results. In the field of element analysis, we have everything under one roof - an extensive portfolio, short distances, and an experienced team.

Discover our pivotal role in chemical research: understanding composition, quantifying down to trace levels, and rapid identification of impurities. Our ideal working environment and smart logistics provide the opportunity for high sample throughput with the highest quality, delivering analysis results as quickly as possible.

