



CORPORATE PRESENTATION



GALVATORE
Plating & Equipment

INTRODUCTION

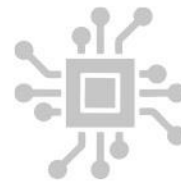
- 2018 Company founded
- 2019 EU patent application for **RACKSTAR®**
- 2020 Market launch of **GALVAZON®**
- 2022 **1st Place – German Business Award**
(Category: “Best Rack Construction and Coating Solutions Provider”)
- 2023 **1st Place – NewWork Business Award**
(Category: “Innovations”)
- 2023 EU patent granted for **RACKSTAR®**
- 2024 Award: “**Entrepreneur of the Future**”
- 2025 Start of serial production of **RACKSTAR®**



WHO WE ARE

We are a specialized company in the field of **industrial surface technology**, focusing on particularly demanding areas of application. With our **RACKSTAR®** technology, we provide **high-performance coating solutions** for applications that require maximum resistance, process-safe layer systems, and technical reliability – in industries such as:

Industrial Manufacturing & Production, Mobility & Transport, Energy & Emerging Technologies, Electronics & Measurement Technology and Specialized & High-Security Applications.





Uncoated pump housing



Heavily corroded,
uncoated missile body



Uncoated compression springs



Pump housing coated with RACKSTAR®



Missile body
coated with RACKSTAR®



Compression springs coated with RACKSTAR®

PRODUCT OVERVIEW

RACKSTAR[®] Pro	Absorption barrier > 100 µm
RACKSTAR[®] Pro Plus	Thicker absorption barrier > 200 µm
RACKSTAR[®] Premium	Tracer + absorption barrier > 100 µm
RACKSTAR[®] Diamond	Hybrid system combining metal and lacquer with anti-fingerprint effect
RACKSTAR[®] Infinity	Excellent resistance in acidic and alkaline environments
RACKSTAR[®] Defense	Enhanced aero- and hydrodynamic performance
RACKSTAR[®] Topcoat	Sealer for trivalent hard-chromed components
RACKSTAR[®] Hydro Protect	Protection for H ₂ infrastructure and fittings – against permeation, embrittlement, corrosion and UV exposure
RACKSTAR[®] Protectode	Effective shielding of electrode edges under high current density

RACKSTAR® Pro / Plus / Premium

- Fluorine alloy based on PVDF + X
- Hydrophobic coating
- Excellent chemical resistance in acidic environments
- Thermal resistance up to 95 °C
- High contact angle > 85 °
- Free from PFAS, PFOS and solvents
- Integrated early-warning system:
Wear condition becomes visible under UV light
- Available in various RAL colours
- **Applications: pump housings, compression springs, racks and more**

RACKSTAR® Diamond / Topcoat

- RACKSTAR® Diamond is a fluorine-free coating system
- RACKSTAR® Topcoat is a fluorine-based system, comparable to the Pro / Pro Plus / Premium variants
- Both systems offer reliable chemical resistance to acids
- Macrocracks in the substrate are specifically sealed
- The coating layers are crack-free and ensure high surface integrity
- RACKSTAR® Diamond is optionally available in RAL colour variants
- **Applications: shock absorbers, hydraulic cylinders, chassis components, drive shafts, joints and more**

RACKSTAR® Protectode

- Fluorine alloy based on PVDF + X
- Excellent chemical resistance in acidic environments
- Thermal resistance up to 95 °C
- High contact angle > 85 °
- Targeted protection of high current density zones at the edges:
 - Prevents substrate degradation
 - Promotes more uniform current distribution
- **Applications: electrodes, contacts, conductor tracks, sensor elements and more**

RACKSTAR® Infinity

- Fluorine alloy based on PVDF / FEP / ECTFE
- Excellent chemical resistance – in both acidic and alkaline media
- Thermal resistance up to 150 °C
- Extreme contact angle – up to 160 °C → highly hydrophobic surface
- Optional tracer integration – for early warning or wear detection
- **Applications: reactor components, piping systems, workpiece carriers, process modules, hydrogen-carrying components, chemically exposed plant sections and more**

RACKSTAR® Defense

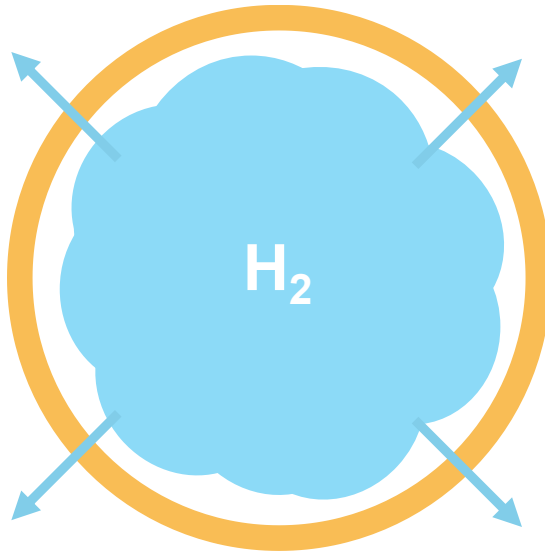
- Fluorine-based high-performance coating based on PVDF + X
- Extreme chemical resistance
- Contact angle $> 85^\circ$ → hydrophobic, low-friction surface
- Reduced air and water drag
 - increased speed and impact pressure
 - improved targeting accuracy
- Optional EM shielding
 - reduced radar signature / stealth effect
- **Applications: projectiles, torpedoes, drones, EM-sensitive components, marine technology and more**

RACKSTAR® Hydro Protect

- **Fluorine alloy based on PVDF + X + Y**
- Excellent chemical resistance and corrosion protection
- High ductility → no brittle fracture at low temperatures
- Thermally stable down to -250°C
- Protection against hydrogen embrittlement & H_2 permeation
→ enabled by the harmonica effect
- UV-resistant for long-term outdoor use
- **Applications: hydrogen pipelines, cryogenic tanks, offshore components, low-temperature valves, UV-exposed exterior parts, highly corrosive plant environments and more**

CURRENT CHALLENGES IN H₂ PIPELINES

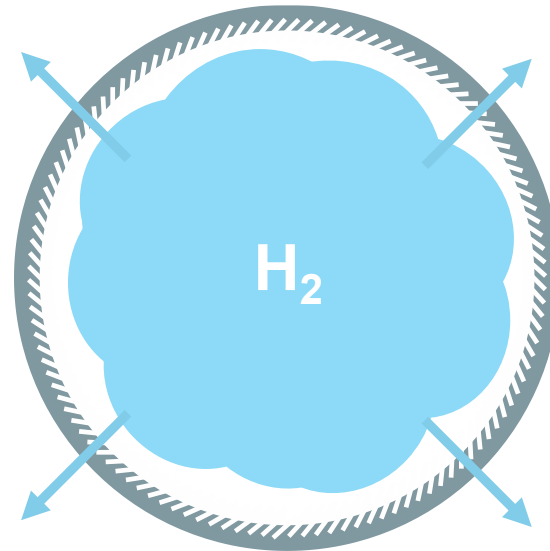
H₂ loss / permeation
x % per hour



Plastic pipe

- up to max. 2 bar depending on wall thickness
- low pressure resistance

H₂ loss / permeation + embrittlement
x % per hour and 100 %



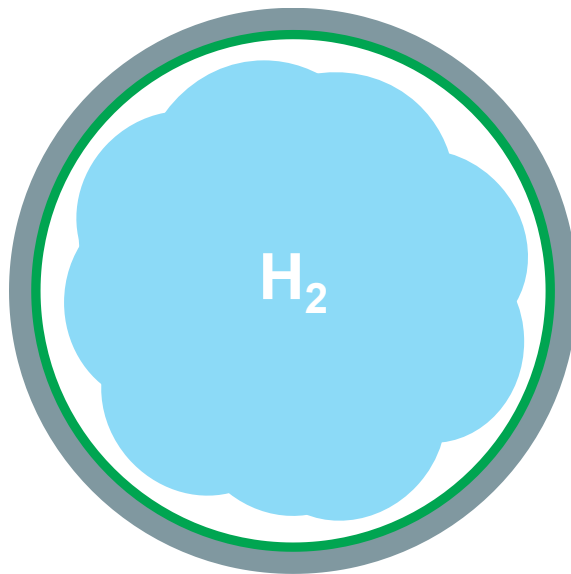
Stainless steel pipe

- up to approx. 20 bar depending on wall thickness
- high pressure resistance

THE SOLUTION: RACKSTAR® HYDRO PROTECT

H₂ permeation and embrittlement

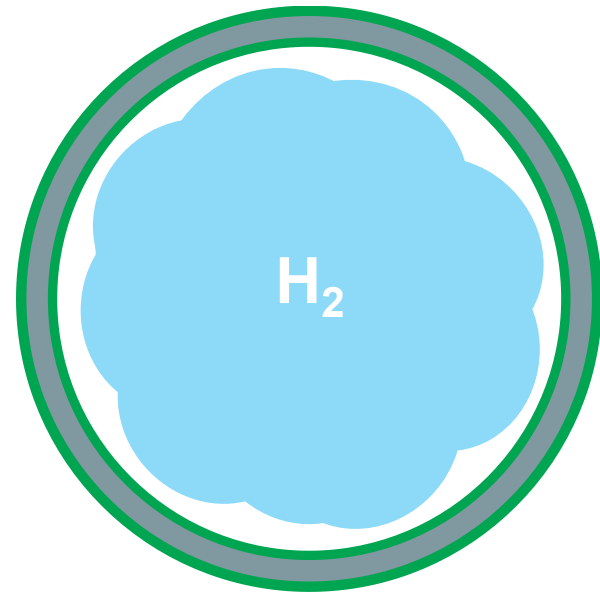
0 %



Stainless steel pipe

Coated with RACKSTAR® Hydro Protect
inside

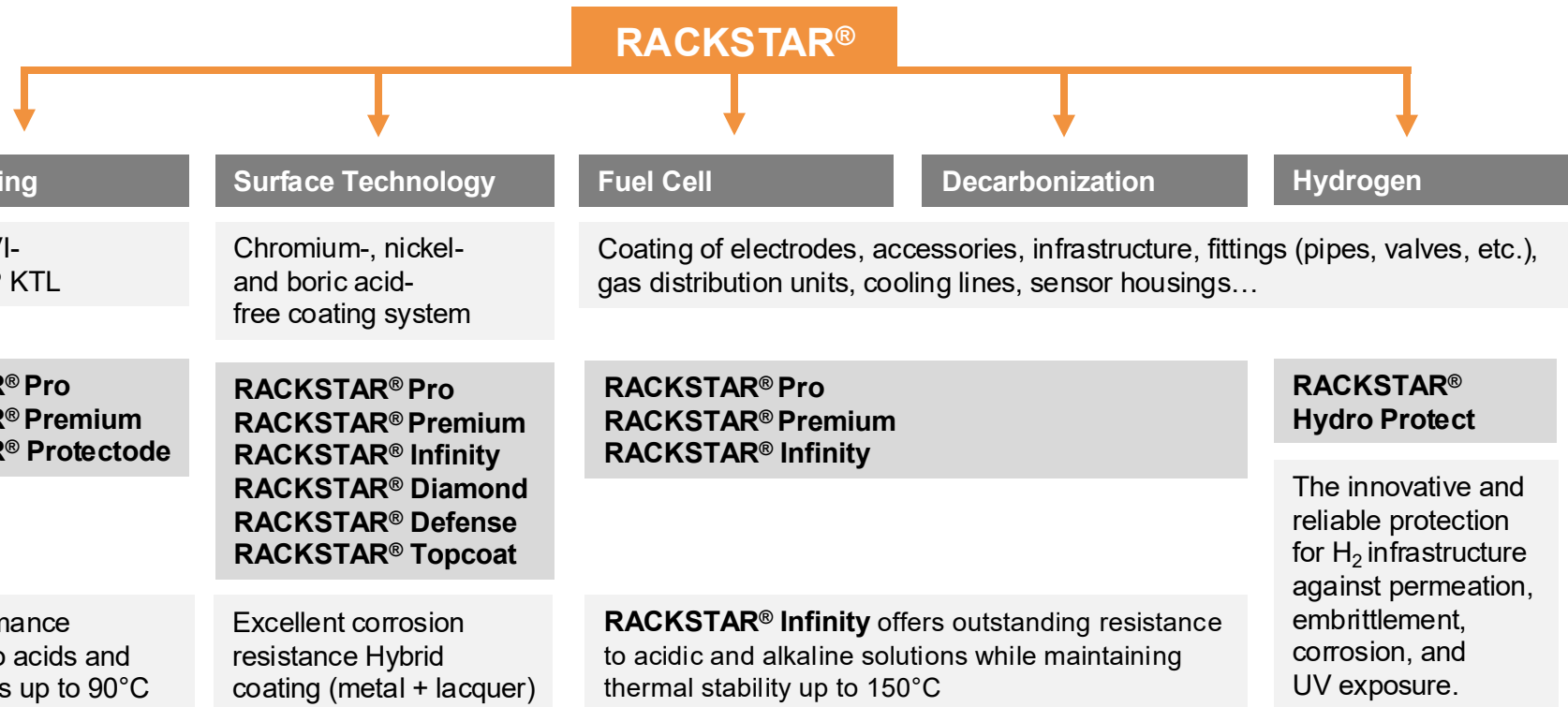
H₂ permeation + embrittlement 0 %
UV radiation + corrosion protection 100 %



Stainless steel pipe

Coated with RACKSTAR® Hydro Protect
inside and outside

TECHNOLOGY THAT MAKES THE DIFFERENCE



Many coating systems can be equipped with a tracer upon request. All systems **comply with REACH and EU regulations** (free from perfluorinated and polyfluorinated surfactants – **PFAS target year 2030** – and **free from solvents/VOC substances**).

RACKSTAR® TECHNICAL FEATURES

Material & Structure

- Fluoropolymer: PVDF+X, PVDF/FEP, FEP/PTFE, PVDF/FEP/PTFE, PVDF/ECTFE
- Layer thickness: 100–300 µm
- PFAS/PFOS- and solvent-free
- Multicolor available in Premium & Diamond versions

Surface properties

- Hydrophobic & dirt-repellent
- Contact angle: > 85° up to 150°
- Anti-fingerprint effect
- Macrocrack sealing
- High ductility even at thick layers

RACKSTAR® TECHNICAL FEATURES

Chemical & temperature resistance

- Acid-resistant (all versions)
- Alkaline-resistant with RACKSTAR® Infinity
- Thermally stable up to 90°C
- Up to 150°C with RACKSTAR® Infinity

System effects & protection functions

- Early warning system (RACKSTAR® Premium only)
- Improved aero- & hydrodynamics (flow smoothing)
- Electrical protection: insulation & radiation shielding (UV, beta, gamma)
- Drag coefficient reduction (tactical advantage)

CERTIFICATES AND TEST REPORTS

Our RACKSTAR® systems are currently undergoing certification.
Testing follows current DIN standards and covers a variety of stress scenarios:

- **480 h salt spray test**
according to **DIN EN ISO 9227:2024-10 (NSS)**
- **48 h copper-accelerated salt spray test**
according to **DIN EN ISO 9227:2024-10 (CASS)**
- **4 cycles Kesternich test**
according to **DIN 50018:2013, AHT 2.0 S**
- **Corrosion protection class C5 high**
according to **DIN EN ISO 12944-6:2018**

GALVAZON® – YOUR DIGITAL GATEWAY TO COATING

- Fast sketch creation & structured approval workflow
- Intuitive, secure ordering process – globally accessible
- Shipping with tracking and transparent supply chains
- Reduces travel effort and CO₂ emissions
- Available in German & English – compatible with all systems
- Optional AI support can be integrated



THANK YOU

FOR YOUR ATTENTION

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