



Sales & production worldwide

What began in 1884 as a supplier to the Wuerttemberg court is now a globally operating company with locations in Mexico, the USA and China.

CORROSION PROTECTION FOR BATTERY SYSTEMS

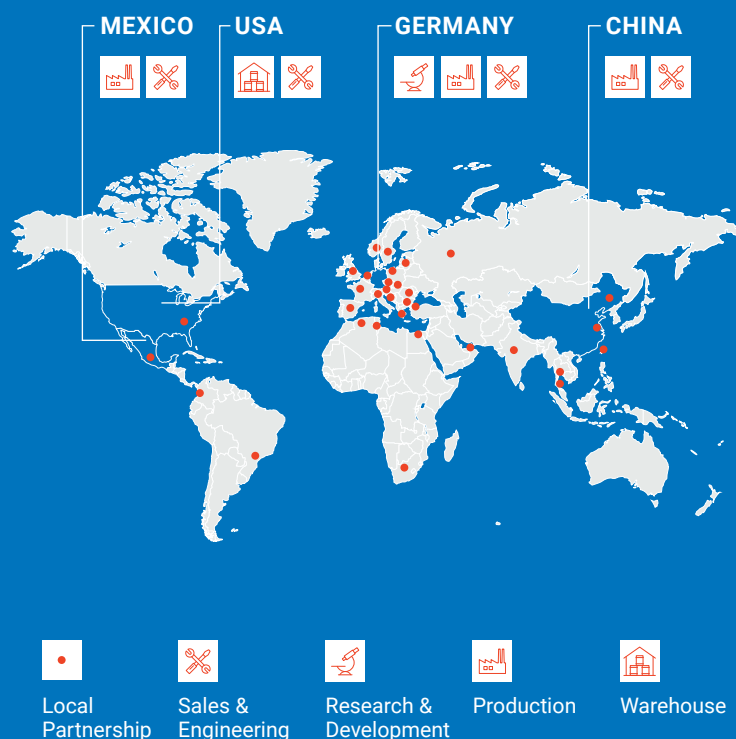
Company PFINDER

Your global partner for corrosion protection and non-destructive testing

We are the leader in corrosion protection and material testing. More than 90 automotive plants around the world use PFINDER products. Over 20 million new vehicles are protected against corrosion each year with PFINDER cavity preservation and underbody protection. This means that every second preserved vehicle worldwide is prepared for a long service life with material from PFINDER. Our dedicated employees are responsible for this.

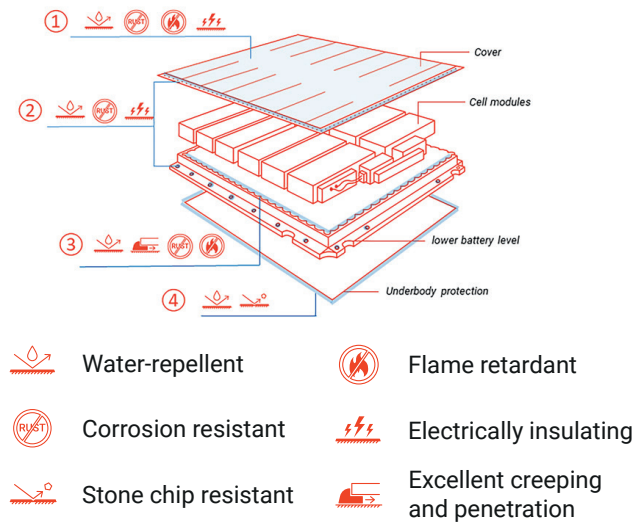
Our research and development finds the solution for your requirements

The development of new products for corrosion protection and non-destructive material testing as well as the improvement of existing applications are key stones of PFINDER. 8% of PFINDER's employees work in research and development. In this way, our products and services for cavity preservation and underbody protection are constantly being improved and adapted to the needs of our customers.



PFINDER solutions

With battery and fuel cell electric vehicles (BEV & FCEVs) the energy storage systems changed as well as the safety requirements. The chassis design has more cavities, edges, folds, and is based on a multi-substrate mix. Both changes increase the risk of corrosion, which endangers the crash resistance of the whole vehicle. PFINDER has optimized the product portfolio for structural components and joints of battery systems. They act as a barrier against water and prohibit galvanic corrosion. In addition, they are electrically insulating and flame retardant.



- ① Corrosion protection coatings for large surfaces
- ② Corrosion protection for joints and seals
- ③ Cavity protection
- ④ Stone chip protection coating

Battery systems in BEVs are exposed to high levels of moisture and direct stone impacts due to their location close to the ground. Moisture must not be allowed to reach the electrical components in battery systems, so the sealing points must be specially protected.

APPLICATION EXAMPLE 1

- | Corrosion on seals can lead to leaks
- | The sealing point works due to thermal expansion/change

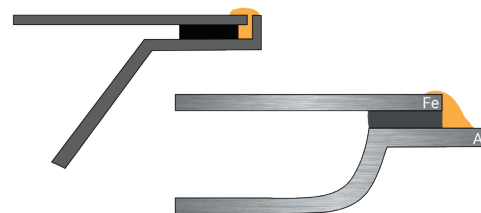
SOLUTION

- | Application of a room-temperature drying wax based on a corrosion coating with high long-term flexibility on the sealing area
- | Barrier effect against corrosive media prevents corrosion at the sealing area
- | Material capable of creep, through which it penetrates deeply

BENEFITS

- | Reduction of the risk of leakage
- | Sealing points can be easily opened and material residues easily removed (reparability of the battery system)
- | Low material cost due to selective coating

Protection of a gap with seal:



APPLICATION EXAMPLE 2

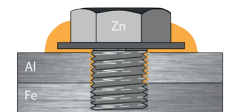
- | Corrosion protection can be layer destroyed by screwing
- | Corroding fasteners, such as screws, bolts and rivets, lead to leakage in the joint
- | Joint works through thermal expansion, which can also lead to destruction of the corrosion protection layer
- | Possible multi-material mix increases contact corrosion

SOLUTION

- | Application of a room-temperature drying wax based on an anti-corrosion coating with maximum long-term flexibility under thermal and mechanical stress
- | Protection of the contact point by the material covering the screw and penetrating deep into the contact surface
- | Barrier effect against aggressive media prevents corrosion at the joining point

BENEFITS

- | Reliable tightness of the joint
- | No complex design necessary
- | Less material required due to selective coating
- | Joints can be easily released and opened (reparability of the battery system)



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