

CASE STUDY

**SEALED ROOF STEPS
THANKS TO RELIABLE
EPDM PROTECTION**

**FURTHER DEVELOPMENT OF EXISTING
RUBBER MAT BRINGS SUCCESS**



CLIENT'S PROFILE

Company:

Heuel und Söhne GmbH

Hauptsitz:

Sundern-Hachen (NRW),
Germany

Size:

100 employees

Year of foundation:

1955

Industry:

Roofing and fencing

Products:

Roof steps, snow rails, walkways,
emergency stairs and many more.

CHALLENGE

Design rubber coating
for tight roof step feet

Further development
of the roof step cover with an overcoat



SOLUTION

New development of an EPDM coating that
allows water to run past and thus prevent it
from entering the mat

Fast test possible thanks to 3-D prototype



RESULT

Durable waterproof protection

No water penetration at the borehole





CHALLENGE

WANTED: WEATHERPROOF PROTECTION FOR ROOF STEPS

The company Heuel und Söhne GmbH manufactures roof elements that enable safe access to roofs. For their cast aluminum roof steps, stainless steel structures are screwed onto roof platforms. This creates the possibility of rainwater entering the roof.

A rubber coating was designed to prevent water from entering, keeping the roof dry at the point of drilling. Jäger Gummi und Kunststoff, as a long-standing development partner, was commissioned with an additional solution for the rubber mat on the roof step, as the mat was becoming detached from the roof step foot over time.

CHALLENGE

TIGHT ROOF SYSTEM SOUGHT

An EPDM overlay on the roof steps ensures that no water enters the roof at the drilling points. However, the EPDM mat used by the customer until then was not sufficient on its own; water entered there over time because the rubber stretched at the foot. The experts at the JÄGER Group have therefore further developed this EPDM mat to include an EPDM coating.



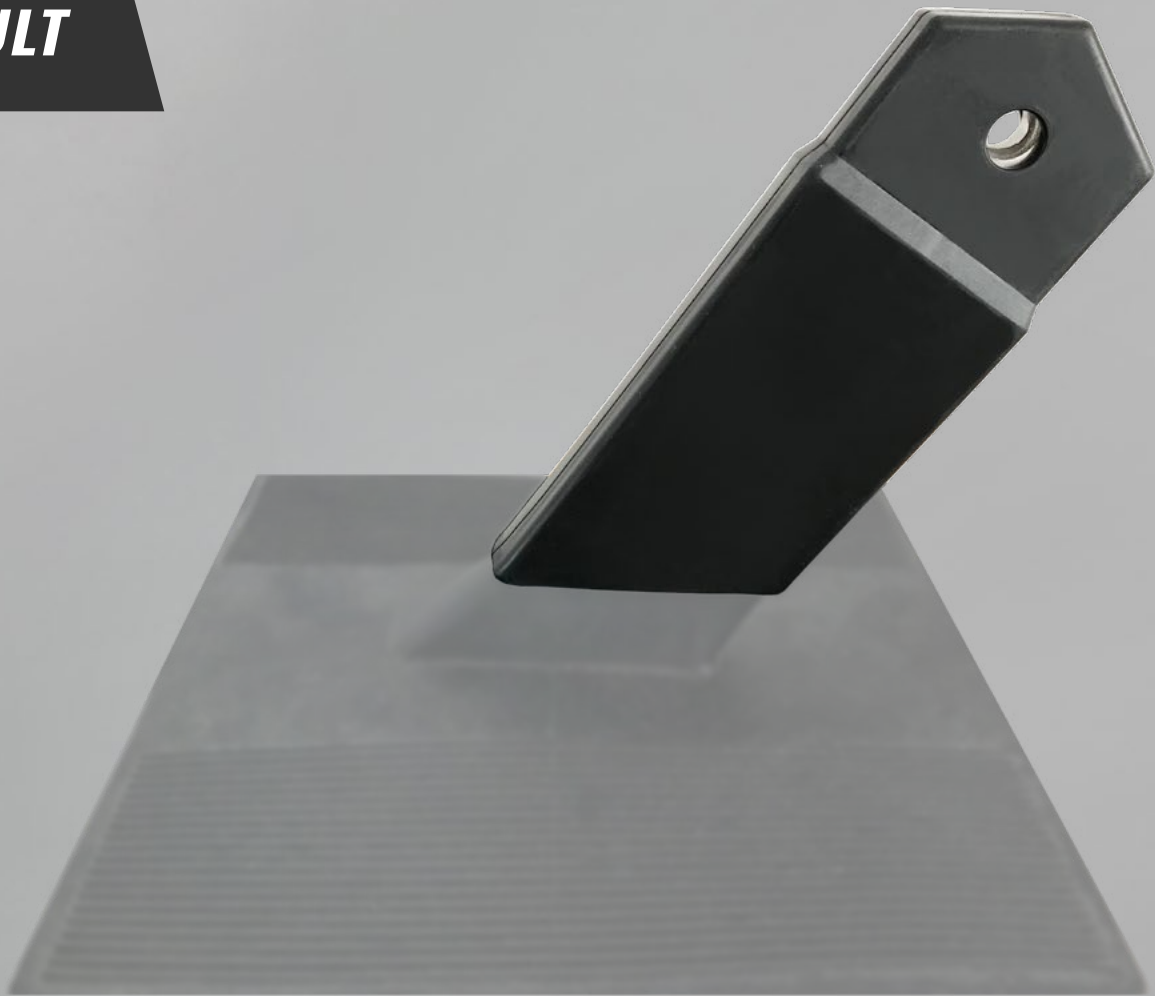


PERFECT MATERIAL KNOWLEDGE FOR FURTHER DEVELOPMENT

The material compound used to date for the EPDM support mat was adopted for the new additional cover, but its Shore hardness was changed. This ensures impermeability and also increases the service life of the product. The experts produced a prototype of the new cover using a 3D printing process.

Jäger Gummi und Kunststoff, together with Heuel, carried out the first test of the prototype on the stainless steel foot. For this purpose, the new cover was pulled over the stainless steel leg of the plate and, together with the mat, covers the complete foot. Subsequently, the prototype was extensively tested in practice at the customer's site.

RESULT



DRY ROOFS THANKS TO EPDM PROTECTION

After successfully passing the tests, the EPDM cover for the roof steps went into series production. In the meantime, the component, which appears small at first glance, has already ensured tight boreholes and thus dry house roofs on many roofs.



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