



Sealing sheets and profiles for the façade

SAFETY AND STABILITY FOR EVERY TYPE OF FAÇADE

DURAPROOF — Perfection through material and know-how

Connection joints are a neuralgic point of each façade. NOVOPROOF® products guarantee 100 % safe connections between façade and window. To achieve absolute stability and a safe sealing of multi-layered façades and sealing profiles, the additional application of DURAPROOF moulds and collars is recommended.

Over 60 years of experience and innovations

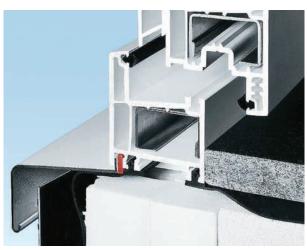
Long years of development and highest-quality production of permanent sealing systems made of EPDM and butyl rubbers – that's DURAPROOF. Research, development and production are carried out in the south-western German city Wadern-Büschfeld. The in-house mixing department ensures constant compliance with the rubber's technical properties, thereby guaranteeing the convincing NOVOPROOF® material advantages.

Know-how down to the smallest detail

Connection joints require careful planning because the maintenance of joints is not possible in the façade area. Once the building has been finished the sealing can no longer be inspected or repaired! Due to their ideal installation characteristics and the high-quality material, DURAPROOF rubber connection sheets have over many decades proved to be the best solution in this special field.



In its own laboratory and technical centre, DURAPROOF constantly optimizes the material compounds for its worldwide leading sealing systems.



Façade strips with welded-on profile sealing to be adhered to the wall: on the left NOVOPROOF® FA for the exterior wall, on the right NOVOPROOF® FAI for the interior wall.



NOVOPROOF® - all advantages at a glance

Sealing sheets made of EPDM rubber for the exterior application and of butyl rubber for the interior application convince in every respect:

- · Maximum protection of the building through optimal tightness between window and façade
- · Extremely durable and safe functioning
- · Resistant against a variety of chemical and mechanical influences
- · High compatibility with other building materials
- 100 % UV- and ozone-resistant
- · Highest flexibility during the entire life cycle
- Reliably functioning from -40 °C to +100 °C
- Bondable at temperatures down to -10° C
- Bondable on most different, even wet surfaces
- · Very good price-performance ratio
- · Proved over 30 years in practical use
- · Easy recycling of material, even thermal recycling possible









DURAPROOF's complete program for the sealing of façades

- NOVOPROOF® FA: Sealing sheets made of EPDM for the external application Page 4
- NOVOPROOF® FA-SELF: Self-adhesive **EPDM** sheet for the external application Page 4
- NOVOPROOF® FAI: Sealing sheets made of butyl rubber for the internal application Page 6
- NOVOPROOF® FAI-SELF: Self-adhesive butyl rubber sheet for the internal application Page 6
- NOVOPROOF® Keder profiles Page 8
- · Moulds and collars, prefabricated or tailor-made

Page 10

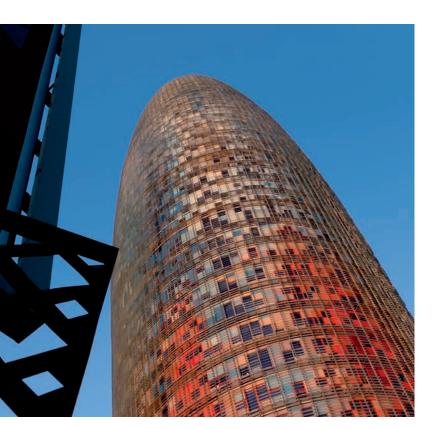
- System components for the installation
- Page 12
- DURAPROOF services from the planning to construction site

Page 14

PERMANENTLY PROOF AGAINST WIND AND WEATHER

EPDM sealing sheets for exterior applications

With NOVOPROOF® FA and the self-adhesive alternative NOVOPROOF® FA-SELF, DURAPROOF offers a safe barrier against rising moist laterally penetrating into the façade. DURAPROOF's high-performance synthetic rubber convinces through unmatched properties, especially through its natural elasticity.



NOVOPROOF® FA for durable and safe sealings

Aggressive salts can destroy concrete and brickwork. Sealing sheets made of EPDM avoid such damages and other hygroscopic changes to the material. These sheets can be installed without difficulty on almost all substrates; they are bitumen-compatible and neutral towards customary heat insulation systems. NOVOPROOF® FA can also be delivered as prefabricated collar in any size and geometry. The fabrication of individual special forms is also possible on request.

NOVOPROOF® FA sealing sheets at the office building Torre Agbar, Barcelona, Spain.



With adhesive strips: NOVOPROOF® FA-SELF

Short installation times and processing almost irrespective of weather conditions are characteristic for the version with one-sidedly or two-sidedly affixed adhesive strips. Without using additional adhesives, NOVOPROOF® FA-SELF can even be installed on humid substrates and at temperatures as low as -10 °C. When substrates are even, nonporous, non-absorbing and capable of bearing load, the adhesive edge is strongly pressed on with a hand roller after removal of the protective film. NOVOPROOF® FA-SELF can, among other things, be applied on eloxal, aluminium, powder-coated steel, zinc, raw aluminium as well as wood, PVC and stainless steel. When substrates are absorbing and porous, an undercoat with NOVOPROOF® primer is sufficient.



Technical data of NOVOPROOF® FA and NOVOPROOF® FA-SELF, made of EPDM rubber, DIN EN 13859-2

Colour	black
Nominal thickness	0.6/0.75/1.0/1.3 mm
Standard widths	100/150/200/ 250/300/400 mm (other widths available on request)
Length	20 m
Shore A hardness	approx. 63 °
Tensile strength	210/300/400/475 N
Elongation	630 % ± 20 %
Dimension stability	≤ 0.5 %
Foldability at low temperature	−30 °C
Ozone-resistance	no cracks
Water vapour properties	60,000 µ ± 20,000
Resistance to air passage	≤ 0.1

VAPOUR-PROOF IN THE LONG RUN

For the interior application: Sealing sheets made of butyl rubber

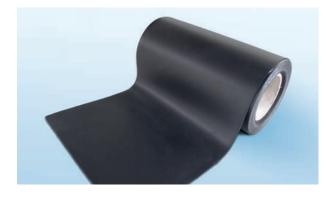
The light multi-layer constructions and ventilated concrete and masonry constructions of modern industrial and office buildings require vapour-proof bondings in the inside of the buildings. With NOVOPROOF® FAI and NOVOPROOF® FAI-SELF, property developers, planners and specialist companies find a solution that meets the highest demands.

NOVOPROOF® FAI

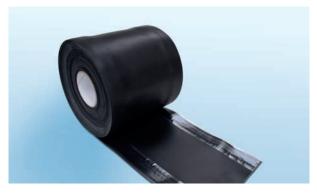
NOVOPROOF® FAI sealings made of butyl rubber are highly effective vapour barriers and thus provide a safe protection against structural damage. They are the tailor-made solution for complex constructional details and an aesthetic appearance. Due to their resistance against chemical and mechanical influences, they set new standards in the curtain wall.

The self-adhesive version: NOVOPROOF® FAI-SELF

Self-adhesive sealing sheets allow a quick and economic installation even in the building's interior without ignoring the safety aspect. This sealing sheet can be installed at temperatures down to -10° and also on wet substrates. For the installation on even, nonporous and non-absorbing substrates, the adhesive edge has to be strongly pressed on with a steel hand roller after removal of the protective film. Just as NOVOPROOF® FA-SELF, NOVOPROOF® FAI-SELF can be adhered safely and without difficulty to substrates like eloxal, aluminium, powder-coated steel, zinc, raw aluminium as well as wood, PVC and stainless steel.

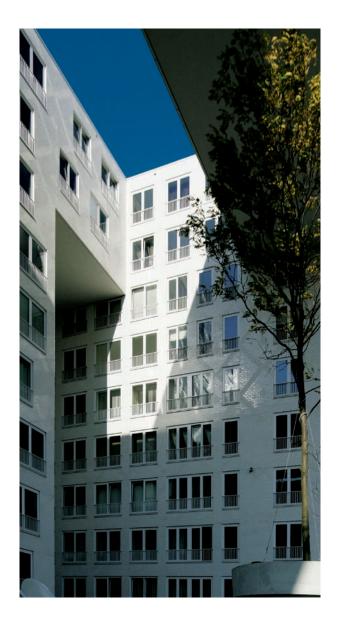


NOVOPROOF® FAI can be delivered in different widths.



NOVOPROOF® FAI-SELF with one- or double-sided adhesive edge.





Technical data of NOVOPROOF® FAI and NOVOPROOF® FAI-SELF, made of butyl rubber, DIN EN 13859-2

Colour	black
Nominal thickness	0.75/1.0/1.3 mm
Standard widths	100/150/200/ 250/300/400 mm (other widths available on request)
Length	20 m
Shore A hardness	ca. 63 °
Tensile strength	245/335/430
Elongation	500 % ± 20 %
Dimension stability	≤ 0.5 %
Foldability at low temperature	−30 °C
Ozone-resistance	no cracks
Water vapour properties	156,000 µ ± 20,000
Resistance to air passage	≤ 0.1

 $\label{thm:ligh-rise} \mbox{High-rise building Woongebouw Parkrand, Amsterdam, Netherlands.}$



Connecting windows and façade: Sealing strips with keder profile

Window closures in façades can result in extreme cross-sectional deviations in the expansion joint area. DURAPROOF's development NOVOPROOF® KE made of highly elastic EPDM rubber deals with extreme movements, bridges movement joints and assures permanent tightness.



Tailor-made solutions: window collar for perfect connections.



NOVOPROOF® sealing strips and collars are available with different keder profiles.

NOVOPROOF® KE with keder

NOVOPROOF® KE sealing strips with keder profile have been developed by the DURAPROOF research department in close co-operation with window and façade manufacturers. Just like NOVOPROOF® FA and NOVOPROOF® FAI, those strips are sealing sheets that are provided with an EPDM clip-on profile in the factory. This enables the strips to be affixed in captive grooves without using adhesives and sealants.

Connection with different window materials

A captive groove ensures the safe connection with the window frame – regardless of whether the window is made from aluminium, wood or plastic. The window feet are of course adapted to the respective window construction.







High-rise building De Stadsheer, Tilburg, Netherlands.

Connection with façade elements

NOVOPROOF® keder profiles can be delivered in the most different geometry versions. Sheets that are provided with keder (clip-on profile) can be installed quickly, safely and in every weather condition.









Flexible and durable: NOVOPROOF® KE

With a great variety of practical and easy to mount keder profiles, NOVOPROOF® KE is suitable for almost all customary façade elements and window types.

- Different sizes
- Different thicknesses
- As individual production also available with self-adhesive edge
- High dimensional stability
- Pressure-resistant up to 4 bar
- Vapour-proof and vapour-permeable
- Permanently elastic from –40 °C to + 100 °C
- UV- and ozone-resistant



Tailor-made moulds: Save time and gain safety

It's nice when the construction makes good and quick progress: corners and whole collars prefabricated in the factory reduce the installation time and enable a rational, economic and, above all, safe sealing of all critical points of the façade.



Gutter lining at the heritage-protected pyramid roof, University of Konstanz, Germany.

Sealing of windows, oriels, corners, pillar tabs

When applying DURAPROOF form parts, users profit from DURAPROOF's long years of experience. Taken the broad range of standard moulds and collars offered by DURAPROOF, even the most difficult constructions, such as inside and outside corners or corner reinforcements for large components and pillar tabs, become durably waterproof. In addition to that, DURAPROOF manufactures individual special profiles for the sealing of penetrating construction elements or service and air ventilation ducts. A self-adhesive version of all moulds and collars is also available.

Safety at its best

When applying moulds and collars, the waterproofness, airtightness and water-vapour impermeability of a façade no longer depend on the correct pre-cut of the sealing sheet and its manual adhesion. The fabrication is usually object-related and there are almost no limits to material choice or form.





Timesaving installation all around a complete window unit with prefabricated collars.







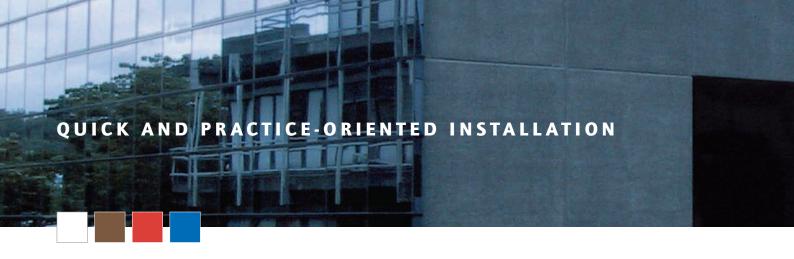




Moulds for every occasion

- For all stable undergrounds
- One-sided or double-sided adhesive edge
- With protective foil
- Different widths
- Permanently sealed connections
- Vapour-proof or vapour-permeable
- Permanently elastic from $-40~^{\circ}\text{C}$ to $+100~^{\circ}\text{C}$
- UV- and ozone-resistant

Safe flange-mounting and permanent sealing on the building site by moulding parts and collars in basic versions and special designs.



System components and accessories

Powerful adhesion, elastic sealing – DURAPROOF offers a complete program for the efficient and reliable installation on site. The approved NOVOPROOF® adhesive system with its chemical composition, is perfectly suited for all technical fields of application.



The NOVOPROOF® adhesives FA und FA+ are available in practical 600 ml flexible tubular bags.



The contact adhesive NOVOPROOF® TA is delivered in 800 g boxes and in 4.7 kg packages.

NOVOPROOF® adhesives

The NOVOPROOF® adhesive system makes every application possible. For a partial, spot-like or linear adhesion we offer environment-friendly and low-solvent NOVPROOF® special adhesives. They make an additional mechanical fixing of the sheets unnecessary.

- · Adhesive TA: the classic contact adhesive
- Adhesives FA und FA+: pasty construction adhesives for raw, uneven undergrounds
- Connecting paste for the permanently elastic sealing of connection joints

NOVOPROOF® primer for porous substrates

Prior to an adhesion with NOVOPROOF® FA and NOVOPROOF® FAI on absorbent or wet substrates, an undercoat with primer is necessary. The primer supports the adhesive force, closes open porous surfaces and keeps humidity away from the adhesive. It can be applied with all three NOVOPROOF® adhesive types. Advantages of the NOVOPROOF® primer:

- · Adhesion on wet substrates possible
- Adhesion at temperatures down to −10 °C





For the additional sealing of connections: NOVOPROOF® connecting paste in cartridges (310 ml).

NOVOPROOF® connecting paste

A single-component silicone rubber for the additional sealing of membrane connections. NOVOPROOF® connecting paste is ideal to seal chimney connections, cap flashings or flashing strips, breakthroughs for rooflights, antennas, air ducts; connecting joints between metal-, wood- or PVC-frames and mineral building materials. It's also suitable for the sealing of glass and frames made of metal, wood or PVC, and many other materials.



 $NOVOPROOF \^{\circ} \ cleaning \ agent \ applicable \ to \ clean \ and \ degrease \ substrates \\ prior \ to \ using \ adhesive \ (1 \ litre \ bottle, 5 \ litre \ trading \ unit).$

NOVOPROOF® cleaning agent

Dry, clean and release-agent-free substrates are essential preconditions for permanently sealed connections. For a thorough cleaning of dirty surfaces prior to the application of primer or adhesive, we recommend this powerful NOVOPROOF® cleaning agent.





Technical know-how and service go without saying for DURAPROOF

Apart from offering comprehensive expert advice for planners, building companies and property developers in regard to material choice and installation, DURAPROOF provides comprehensive training opportunities for installers, and it renders effective support on the construction site.

With our great knowledge we have a lot to say

In technical consulting talks, we pass our precious knowledge on to architects, construction engineers and processors. This knowledge crucially contributes to meet the builder's quality requirements and to satisfy his need for 100 % safety and property value retention. When choosing the appropriate sealing system, the following factors have to be considered:

- · Driving rain exposure
- Wind load
- Ozone- and UV-concentration
- Avoidance of condensation water
- · Chemical compatibility of all materials
- Movements in the connection area due to thermal differences
- Form and material of the building element to be connected
- Condition of the adjoining materials

Project-specific special solutions

The DURAPROOF development department provides special solutions for special problems:

- · Collars, moulds and corners in special dimensions
- Individual material widths and fixed lengths
- · Sealing strips with different keder profiles
- · Sealing strips with one or two self-adhesive edges



Maximum protection through individual tailor-made production.



Safety guaranteed in writing

NOVOPROOF® sealing systems have all necessary approvals and certificates required for the application on the construction site. In addition, we possess test and inspection reports and declarations of conformity.

• CE certification according to DIN EN 13859-2



Façade sealing at university of applied sciences, Rosenheim, Germany.









Services offered by DURAPROOF

- Advice and material recommendations
- Support for architects and planners
- Processing guidelines
- Project-related construction site management
- Organized logistics for large projects
- On-time delivery on site
- Instruction on site



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