

APPLICATIONS



**Sealing profiles for windows,  
doors and gates**

# PERMANENTLY ELASTIC PROFILES FROM THE EXPERTS



## The ideal seal: NOVOPROOF® FE made of EPDM rubber

**DURAPROOF has been setting the standards worldwide for many decades with its permanently elastic NOVOPROOF® FE sealing profiles. By using leading technologies, from development through to production, each customer receives precisely the right profile to ensure perfect tightness of their end product.**

### EPDM – the ideal material

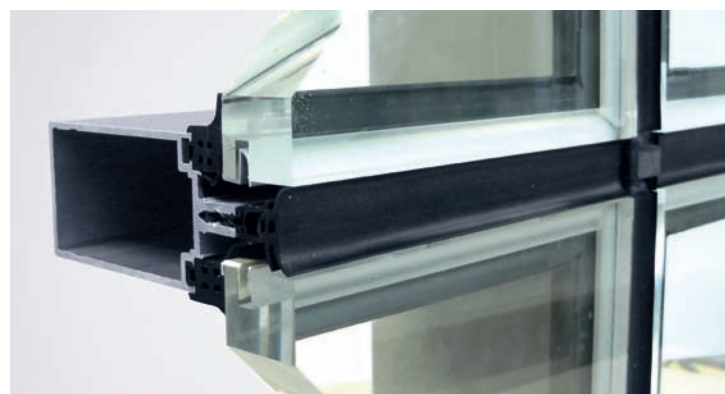
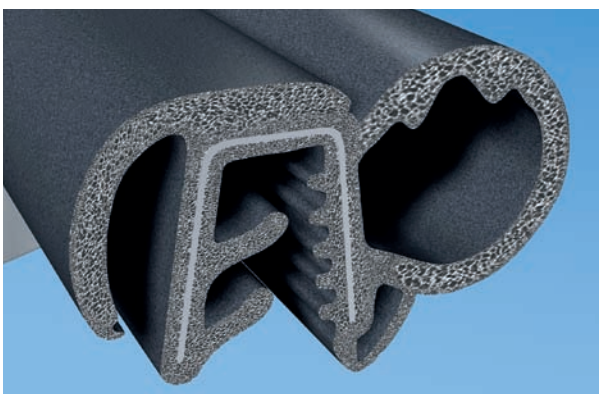
DURAPROOF provides permanently elastic sealing profiles made of EPDM rubber (ethylene propylene dien monomer). A study issued by the WDK – the German Rubber Industry Association („Wirtschaftsverband der deutschen Kautschuk-industrie“) proves: EPDM is an optimum raw material for sealing applications. Taking into account cost aspects, the sum of its properties makes it superior to other materials.

### Material advantages of EPDM profiles:

- High resilience due to permanent elasticity
- Long-term durability and extreme temperature resistance from  $-50\text{ °C}$  to  $+120\text{ °C}$
- High sound insulation values due to closed-cell microcellular rubber
- UV- and ozone-resistant
- Practically maintenance-free

Sealing profiles in car doors withstand extreme mechanical and climatic stress for decades. The innovative technologies of the SAARGUMMI Group make this possible and we have adopted this know-how for our NOVOPROOF® gaskets.

Different gaskets in one façade element.





### **NOVOPROOF® FE profiles for all kinds of applications**

- Sealing profiles for windows and doors (flipper, glazing and centre gaskets) and for gates
- Sealing profiles for unitised module and post-and-beam constructions in façades
- Profiles for sound insulation applications
- Special applications, e.g. mineral-oil-resistant tank tension straps

### **Know-how in all sectors, acquired over many years**

- Decades of experience in design and production
- In-house development team for customised solutions
- In-house tool making
- In-house laboratory and analytics
- Modern mixing department at the Büschfeld site ensures defined rubber properties
- State-of-the-art extrusion technologies:  
LCM plant (liquid curing method/salt bath) and  
UHF plant (ultra-high frequency/microwave)
- For special fire protection requirements we can supply profiles made of CR rubber (polychloroprene)



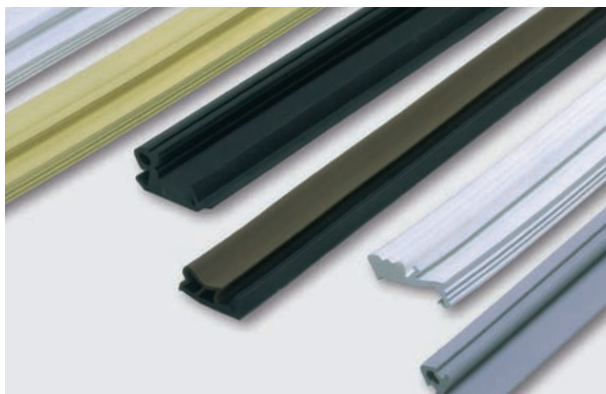
### **Comparison of sealing materials**

#### **Advantages of EPDM rubber**

- Excellent weathering and ageing resistance
- More than 30 years' experience in practical application
- Long-term tightness at temperatures from  $-50\text{ °C}$  to  $+120\text{ °C}$
- UV- and ozone-resistant
- Very favourable cost-effectiveness

#### **Advantages of CR rubber**

- Good weathering and ageing resistance (UV light, ozone)
- In practical use for more than 50 years
- Fire-resistant (hardly flammable)

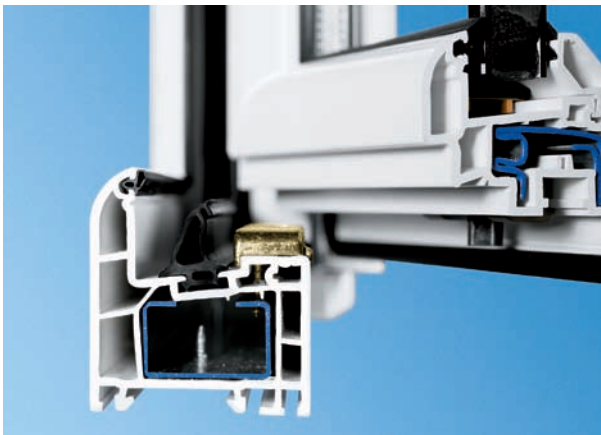


# FULFIL THE HIGHEST STANDARDS



## Proven sealing solutions for all frame materials

Whether wood, plastic, aluminium or wood-aluminium constructions – NOVOPROOF® FE sealing profiles combine simple processing with maximum tightness. For flipper, centre and glazing gaskets, customers can choose from a wide range of window sealing profiles.



### Reliably durable:

#### Sealing profiles for PVC windows

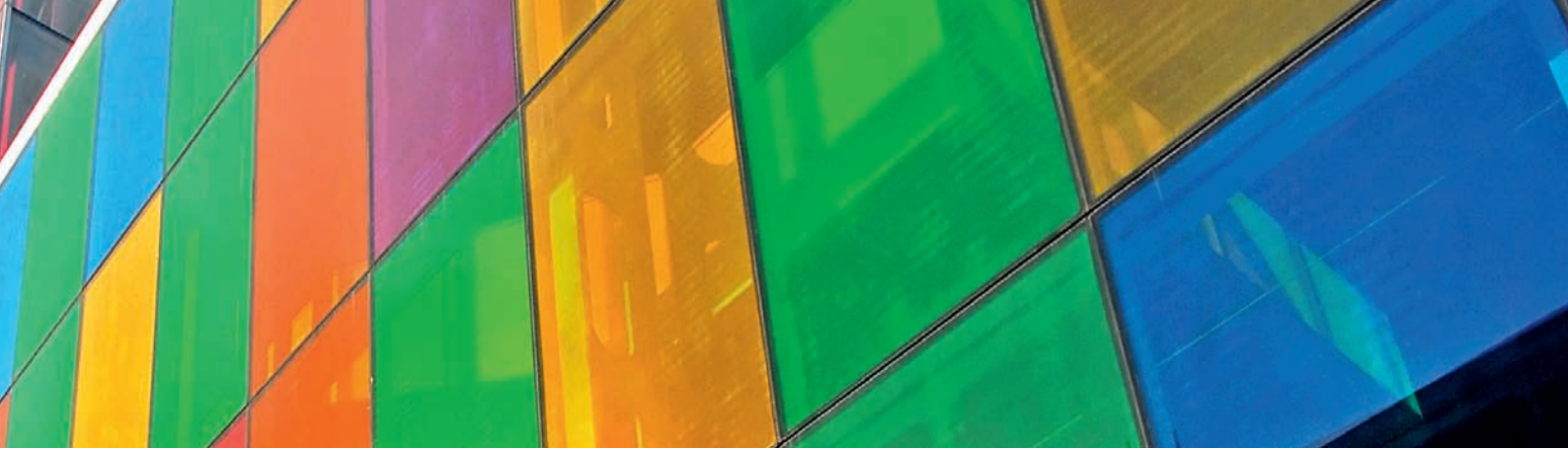
With a patented process, surrounding NOVOPROOF® glazing gaskets ensure closed corners and tight connections in a single operation, without mitre cuts and glued fixing. These sealing profiles for uPVC windows can be either installed manually or drawn in by machine.



### Perfectly simple:

#### Dry glazing for wooden windows

Increased safety and rational handling were among the objectives set for the development of the patented dry glazing system for wooden windows. The system gets along without silicone and is an effective alternative to conventional wet glazing. NOVOPROOF® sealing profiles can be recoated with water-soluble paints or varnishes, so that the natural wood material can be treated with protective coatings.



**Continuously adaptable:**

**Concept for aluminium windows**

For thermal and sound insulation reasons, multi-layer constructions with different rubber compounds are typical in aluminium windows and elements. By combining sealing profile and sealing frame, DURAPROOF has designed practice-oriented and cost-effective products. These gaskets also fulfil increased fire protection requirements.



**Our know-how is our advantage**

In the automotive sector, the SAARGUMMI Group has earned itself the reputation of being an innovation leader through numerous improvements of products and processes. Some of these innovations are also applied in NOVOPROOF® profile gaskets:

- SOLID LIGHT® profiles offer an improved flexibility in the corner area, thus enabling easier redirection, and they allow an excellent compensation of tolerances between the materials to be sealed
- A soft microcellular rubber combination can be realized by coextruded profiles
- Profile gaskets with 40° to 90° Shore A hardness
- Profiles made by variable extrusion; the profile geometry is changed during production

## ADVICE AND SUPPORT FROM THE EXPERT



### Services and additional benefits for a more efficient production

**From the initial contact through to delivery of the readily packaged sealing profiles: DURAPROOF values highly a comprehensive customer service. Our technical and sales experts gladly assist each customer with their advice and support.**



#### **Services for new developments: FEM calculations and prototypes**

New profiles, new challenges: For the simulation of profile properties such as closing pressure or resilience, DURAPROOF offers calculations on the basis of the finite elements method (FEM). For difficult sealing profile geometries, customers can on request receive prototypical profile samples produced with a water jet cutter. That saves the expensive and time-consuming construction of an extrusion tool during the development phase.

#### **Coated profiles for cost-saving installation**

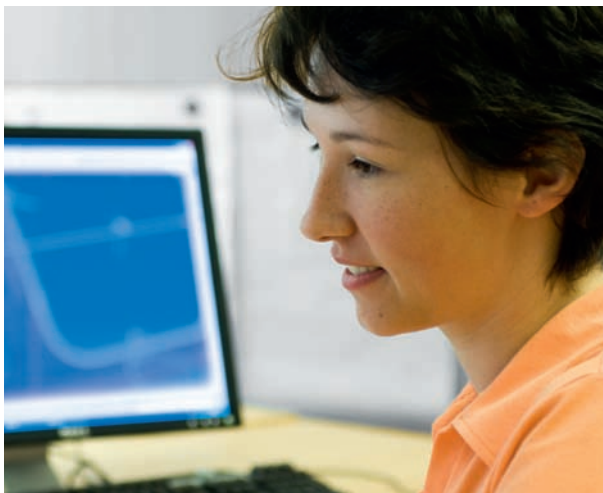
DURAPROOF customers choose between dry and siliconised profiles. Or they opt for profiles treated with antifriction polymer or finished with antifriction varnish. These coatings have numerous advantages compared to silicone:

- Optimised mechanical in-feed due to improved material qualities
- Dirt-free installation
- Colour intensifying appearance
- The seal does not dry out, even if stored for a long period
- Improvement of the surface (soft touch)
- Minimised coefficient of friction for highly stressed application fields, e.g. in folding and sliding doors, as frame gaskets in commercial buildings, and others

#### **Packaging for every installation process**

Users and installers of DURAPROOF sealing profiles receive on request the precise packaging which best suits their individual production process.

- Disposable packaging
- Large range of reusable bulk packaging
- Plastic or cardboard packaging
- Combination of several profiles in one string



On request, the profiles can also be imprinted so that gasket type, manufacturer and application area can be very quickly identified.

#### **CE guidelines and DIN standards**

All NOVOPROOF® sealing profiles correspond to the valid European directives. They are tested according to the current standards, including the material standard DIN 7863 and the application standard DIN EN 12365.



#### **Convincing: The polymer coating**

A special feature is the colourless, transparent polymer coating by DURAPROOF. It can be applied with Plexiglas® and Makrolon® and can also be used with self-cleaning glass such as Pilkington-Activ™ and SGG Bioclean.

The advantages compared to siliconisation:

- Quick and easy installation
- No smearing of window elements
- Sealing profiles receive a colour intensifying appearance
- Lubrication film does not migrate onto adjacent surfaces

**DURAPROOF technologies GmbH**

A company of the SAARGUMMI Group

Eisenbahnstr. 24  
66687 Wadern-Büschfeld

Phone +49 6874 69-270

Fax +49 6874 69-149

[www.duraproof.de](http://www.duraproof.de)

[info@duraproof.de](mailto:info@duraproof.de)