

Sealants – a durable and effective solution for construction

While architects and builders devote a lot of attention to the selection of primary building materials or construction techniques, sealants remain important elements that also affect any construction project. They are important details that play a key role in maintaining the durability, energy efficiency and comfort of building users. As sealants can ensure that buildings and rooms are protected against moisture and wind, they are an integral element of a neat and careful finish.

Construction sealants are special chemical compounds used to fill various gaps and connect building structures and utility devices. They ensure the durability, integrity and safety of the building structure, and create effective insulation against the penetration of moisture, air, noise and other undesirable substances. They are in fact multi-task products – just select the appropriate sealant type for the material or substrate on which you want to use it.

For comfort, health and safety

Depending on the product, sealants have several key functions in construction. They prevent moisture from passing through to the interior of the building, which is important as moisture causes many problems: mold, rot, corrosion of metal elements and weakening of thermal insulation. The latter plays an important role in the energy efficiency of a building. Among other materials, sealants help ensure thermal comfort in the apartment, reducing heating and air conditioning costs. Additionally, the use of sealants reduces noise, which – especially in the case of buildings located on busy streets – can cause a nuisance. All this directly affects the comfort of users and creates better conditions for work and everyday life.

Failure to provide proper insulation may lead to heat or cold loss, which increases the building's operating costs. It may also contribute to various types of diseases related to the presence of moisture, fungi or mold. In the worst case, the building structure may be damaged and its stability compromised.

An array of types to choose from

Sealants differ in terms of composition, properties and applications. In stores, you will find silicone, acrylic, polyurethane and hybrid products, all having their own specific functions. To achieve the desired effect, you need to choose the right product for the right job.

Silicone sealants are characterized by excellent flexibility and resistance to moisture, which makes them an ideal solution for use in places exposed to contact with water, such as bathrooms, kitchens and swimming pools.

Acrylic sealants are characterized by fast curing and easy application, so they are often chosen for interior

finishing, such as sealing corners. **Polyurethane sealants** are known for their durability and resistance to weather conditions, which is why they are often used outside buildings, for example to seal roof joints or façade elements. **Hybrid sealants** combine the features of various types of sealants, which gives them extended durability and flexibility. They are perfect for bathrooms and kitchens where there is increased moisture, as they ensure durable and tight bonds, even in changing weather and use conditions.

Examples of application in various areas

In places exposed to water and moisture, sealants are an indispensable element of finishing works. When properly used in corners and tile joints, they will not only look neat, but will also ensure lasting protection against leaks and structural damage. In this context, we should note **Tytan Professional® Acrylic Quick Effect**. It is a flexible construction sealant intended for filling cracks, chips and crevices in walls and ceilings. Thanks to its innovative formulation, the product can be painted just 10 minutes after application. It is odorless and chemically neutral. It has excellent adhesion to porous substrates such as concrete, plaster, brick, wood and plasterboard, which makes it an ideal solution for use in corners and tile joints. It can be used both indoors and outdoors.

Special treatment should be given not only to porous substrates, but also to delicate ones. Applying sealants to concrete or brick requires proper preparation and care to ensure effective protection. However, in the case of delicate substrates, such as natural stone or mirror, it is necessary to use special sealants that will both provide protection and will be suitable for materials sensitive to damage. **Tytan Professional FIX² Clear Mounting Adhesive – Sealant** will do the job here, creating an invisible joint on various construction substrates while maintaining its strength and flexibility. This makes it an ideal solution for use on delicate surfaces. Additionally, you may be helped by **Tytan Professional Acrylic Quick Effect**, whose curing speed makes it an excellent option for use on both porous and sensitive substrates, ensuring effective protection and quick and lasting results.

Hybrid protection of sensitive spaces

Hybrid sealants will work best in rooms most exposed to moisture and water, such as kitchens and bathrooms. For example, they are suited for sealing shower trays and repairing tile joints, jobs that require special care and precision as those places have constant contact with moisture. It is important to choose the right sealant for each material and use appropriate application methods to ensure lasting protection and neatness.

When sealing a shower tray, remember about the need for special resistance to water and mold. That's why an appropriate product is recommended here. **Tytan Professional Acrylic Silicone Stop Mold** is a high-quality sealant containing fungicides that protect the joint against the development of fungi and mold for up to 10 years. It's a flexible and durable acrylic silicone with high resistance to detergents and typical household chemicals. It provides protection against UV radiation, weather conditions, moisture and temperature changes. It can be applied using a caulk gun or a special spatula for precise application to the surface.



Another product that is perfect for sealing shower trays is **Tytan Professional Silicone Perfect House** – a neutral, fast-curing silicone sealant containing fungicides, free from harmful MEKO chemical compound. This product is recommended as a sealant for kitchens and bathrooms. It is characterized by excellent adhesion to many materials, especially acrylic and PVC bathtubs.

Repairing tile joints is a key step in keeping surfaces neat and durable. Choosing the right sealant is extremely important, as it has a direct impact on the quality and durability of the renovation. For such repairs, it is recommended to use sealants with the right flexibility and durability, such as **Tytan Professional Acrylic Quick Effect** and **Tytan Professional Silicone Sanitary Turbo Effect**. These sealants stand out not only by fast curing time, but also by long-lasting protection. Thanks to their properties, they can effectively protect joints against moisture, dirt and mechanical damage. On top of that, with their flexibility, they help in absorbing possible movements of the substrate and avoiding such issues as cracking or detachment of tiles.

Sealants are the effective solution for construction. This is facilitated by their properties, including resistance to weather conditions, durability, ease of application and maintenance, and the ability to prevent leaks and structural damage. They are key products both during finishing and renovation works. Choosing the right product can significantly affect the quality and durability of projects, so an informed decision to opt for modern Tytan Professional solutions is highly recommended. Whatever your needs and requirements, these sealants are up to the task, providing protection and durability for many years.

Contact for media:

Alicja Kliber
alicia.kliber@selena.com

Agnieszka Kaniewska
akaniewska@kplus.agency
[+48607528883](tel:+48607528883)

For more details, please visit: selena.com and the press office: selenagroup.prowly.com.

Additional information:

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