

Technology That Connects – hybrid adhesives as a key to successful installation

Rapid development of hybrid technologies is one of the prevailing trends in the construction chemicals sector today. According to reports published by FEICA¹, hybrid products are among the fastest growing product categories. These innovative solutions are becoming more and more popular and widely available in the construction industry, significantly affecting or changing the way users work. Present in the industry for over 30 years now, Selena Group – based on its experience as a global manufacturer and distributor of high-quality products – responds to the needs of professional builders specifically in the category of hybrid solutions, among other areas. These solutions include adhesives which, while not being new, perfectly combine the best features of various previous technologies and constantly gain on importance.

Adhesives play a key role in construction thanks to their ability to connect a variety of substrates and materials, allowing the formation of durable and stable structures. Their use enhances the aesthetics of spaces, eliminating the need for drilling or using visible fastening elements. In this way, they help create clean and modern lines in design. Based on advanced polymer technology and combining the benefits of commonly used adhesive types, hybrid adhesives are characterized by high application and performance parameters. These are products whose parameters and unique features respond to the identified needs of end users, allowing them to discover new application areas and meet high expectations related to the impact of products on the environment and health.

Choosing the right adhesive

When choosing the adhesive, you need to consider several important parameters. First of all, determine the types of materials you wish to bond, as not all adhesives are suitable for all types of surfaces. Then take into account the conditions that will affect the bond – whether it will be used indoors or outdoors and whether it may be exposed to moisture or UV radiation. For this reason, you should also think about the requirements regarding curing time and bond strength.

How to recognize a good hybrid adhesive?

Safety and bond strength are key. Hybrid adhesives are expected to meet the ever-increasing requirements and retain their bond strength and fast curing capability while being harmless to human health. They must be safe for both adults and children and must not cause allergy or irritation. These criteria are applied when assessing their suitability for use in public facilities, such as hospitals, schools, sports venues, etc. Moreover, hybrid adhesives should feature good adhesion required for bonding demanding materials (such as plastics). The adhesive should be strong, reliable and fit for purpose in all conditions. Elasticity retained by the cured bond, as exhibited by its shape memory, is yet another desired feature of these products. Other characteristics include resistance to ageing, water tightness, paintability, high mold and mildew and UV resistance, elasticity, non-yellowing and corrosion stability and optional transparent (clear) bond.

Advantage of hybrid adhesives over traditional ones

Traditional construction adhesives, unlike hybrid ones, usually offer longer curing times, which may be less effective in projects where speed of execution is of the essence. Moreover, they do not always guarantee such high resistance to changing weather conditions, moisture or UV radiation. Consequently, they are limited to indoor use mainly. Hybrid adhesives are characterized by easy application and quick bonding. This makes

¹ European Adhesives & Sealants Market 2023-2028, report prepared by Smithers for FEICA; [The European Adhesives & Sealants Market Report 2023-2028 – A quantitative demand analysis and trend forecast : Feica](#).

them a convenient and quick solution, eliminating the need for drilling and using additional tools, which contributes to increased efficiency and comfort of work.

Quality and safety: Selena Group's hybrid adhesives, distributed under the Tytan Professional ® brand, meet the highest quality and safety standards. The certificates awarded to them, including EMICODE EC1 PLUS or ISEGA, confirm that they are safe for users and the environment and meet strict quality and safety standards. As such, they are the go-to solutions for projects requiring the highest quality.

Bonding speed and strength: Hybrid adhesives are characterized by a quick initial grip and a short full curing time. This makes them ideal for applications that require immediate strength, such as the installation of heavy elements or interior finishing works. Compared to traditional adhesives, hybrid adhesives often provide much shorter curing times, saving time and increasing work efficiency.

Versatility and resistance: Hybrid adhesives are known for their versatility and excellent adhesion to a variety of materials, from wood and metal to ceramics and glass. Moreover, they are resistant to moisture, UV radiation and changing weather conditions, which makes them suitable for both indoor and outdoor use. As a result, they can be used in a wide range of construction and installation projects.

“Selena Group's adhesives, manufactured under the Tytan Professional brand, designed based on hybrid technology, are an example of an effective combination of global trends and our long-standing international experience. Our flagship product in this category – Tytan Professional FIX² GT Mounting Adhesive– is chosen by professionals around the world, from Korea to Brazil and from Norway to Algeria, supporting them in their construction and renovation works. Our own R&D team, carefully analyzing the strengths and weaknesses of existing and commonly used technologies, has been steadily developing new solutions to provide hybrid products with the best parameters that cater to the needs of professional builders,” says Adam Bajer, Category Development Manager at Selena Group.

Types of hybrid adhesives

Various types of hybrid adhesives have appropriately selected application and technical parameters and are dedicated to a specific application area or place of use. However, it is their installation efficiency that is considered the key feature. This has earned them the slogan “Technology That Connects”.

The range of these products includes the hybrid mounting adhesive **Tytan Professional FIX² GT Mounting Adhesive**. It is mainly used to install window sills, skirting boards and heavy decorative elements. It is characterized by excellent adhesion to many different materials, quick curing time and high resistance to changing weather conditions. The product is friendly to many sensitive surfaces, such as natural stone, marble and mirrors. It offers an instant initial grip (after just 1 second) and an extremely strong full bond (up to 400 kg/10 cm²) after just 3 hours. This makes it 8 times faster than other products of this type. With its unique combination of strength and speed, it is a great choice for quick installation of heavy internal elements, quick renovations and defect removal, eliminating the need for drilling or hardware.

Another product recommended for mounting work is **Tytan Professional FIX² Instant Invisible Mounting Adhesive**, which creates a completely colorless, flexible joint. It is a transparent polymer-based mounting adhesive with very high bonding strength, especially recommended for installation on transparent substrates and materials and in solutions requiring high aesthetic finish. The product is ideal for working with materials such as glass, mirrors, transparent materials, ceramics, concrete, chipboard, wood, brick and metal.

The reliability of hybrid adhesive technology is often of fundamental importance in various construction works. Their high quality, fast curing time and versatility make them an indispensable tool not only for professionals in the construction industry.

“Tytan Professional hybrid adhesives are suitable for bonding almost all materials in all conditions. Hybrid technology eliminates the need for drilling, minimizing possible damage at the construction site and facilitating smooth, uninterrupted work. Our products are a guarantee of a durable and safe bond, perfect for demanding construction, renovation and defect removal,” Adam Bajer adds.

The use of hybrid adhesives helps minimize damage, including damage to installations during drilling, and allows work round the clock, no matter how the building is used. In addition, the adhesives ensure ease of installation without drilling, dust and dirt, which increases work comfort and hygiene, with no need to use



electricity for drilling or vacuuming after the work is done. Thanks to its safety and quality certificates, **Tytan Professional** hybrid adhesives guarantee not only permanent but also safe connection of materials, while ensuring unrivaled efficiency and durability.

Contact for media:

Alicja Kliber
alicja.kliber@selenacom

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

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

Additional information:

Selena Group is a global producer and distributor of construction chemicals and one of the four largest global producers of mounting foams for construction. For over 30 years, it has been successfully delivering innovative products that accelerate and facilitate work on construction sites in nearly 100 countries. Its foams, sealants, adhesives, waterproofing products, insulation systems, fastenings, and the complete energy roof system not only help in saving energy, water and time, but also substantially increase the energy efficiency of buildings. Selena Group has been actively working for sustainable construction. It participates in projects of the Polish Green Building Council (PLGBC) and the Polish ESG Association. Selena Group comprises 30 companies in 19 countries, and in 7 of those countries it has its own R&D laboratories.