



Sikaflex<sup>®</sup>, SikaBond<sup>®</sup>, SikaTack<sup>®</sup>  
SAFE USE OF POLYURETHANE  
1-C ADHESIVES AND SEALANTS

BUILDING TRUST



# SAFE USE OF POLYURETHANE 1-C ADHESIVES AND SEALANTS

## **WHEN HANDLING CHEMICALS IT IS IMPORTANT TO KEEP EXPOSURE TO THEM AS LOW AS POSSIBLE.**

When working with chemicals like adhesives and sealants, the precautions given in their material safety data sheets are important to protect the health and safety of the users. One component polyurethane adhesives and sealants cure by reaction with atmospheric moisture and this reaction is based on crosslinking of the pre-polymers through their isocyanate groups. This reaction, also called curing, converts the extruded fluid product into a polyurethane polymer compound with its unique properties.

When applying such polyurethane products, users may be exposed to minimal amounts of unreacted monomeric diisocyanates that were used in the production of such pre-polymers. Once fully cured however, the diisocyanates have reacted and the final compounds are completely free of these reactive chemicals.

The European Union is set to announce a new law to further restrict the use of products containing more than 0.1% of monomeric diisocyanates. These new rules will also apply to products that have a lower content of diisocyanate monomers, such as the polyurethane adhesives and sealants used in Industrial Production and Construction works.



**SIKA, AS THE LEADING PRODUCER OF POLYURETHANE RESIN-BASED SEALANTS AND ADHESIVES, TAKES THE HEALTH AND SAFETY OF USERS OF Sikaflex®, SikaBond® AND SikaTack® PRODUCTS VERY SERIOUSLY. THIS HAS LED TO OUR DEVELOPMENT OF A NEW RANGE OF POLYURETHANE PRE-POLYMERS WITH AN ULTRA-LOW MONOMER CONTENT, IN ORDER TO ALLOW CONTINUED UNRESTRICTED USE OF OUR PRODUCTS BY PROFESSIONALS.**


## **RESTRICTED USE OF MONOMERIC DIISOCYANATES**

The new European law will require professional construction and industrial users of products containing more than 0.1% of free monomeric diisocyanates to be trained, with instruction on the risks associated with working with diisocyanates and the corresponding risk management measures required.

- Will come into force in mid-2020 and will apply by 2023.
- Anybody working with products containing > 0.1% diisocyanate will need to be trained
- Trained users can continue using the products.
- The requirements to follow the precautions given in the materials safety data sheets are important to protect the health and safety of the users.
- DIY users are not affected by this new European law.

### Purform® - THE BETTER POLYURETHANE

Sika has developed a set of new polyurethane pre-polymer backbones that will be known and promoted under the brand name of Purform® technology. Products made from these Purform® pre-polymers have ultra-low free monomeric diisocyanate content, in addition to their other product specific advantages. Purform® technology enables users to benefit from the unique performance of polyurethane, whilst eliminating the need for specific REACH health & safety training. The exposure of users will be significantly reduced and limited to the very minimum.

	Regular polyurethanes	Sika Purform® polyurethanes
<b>Content of diisocyanate monomers</b>	> 0.1 wt%	< 0.1 wt%
<b>Classification</b>		-*
<b>Training (as per REACH)</b>	Yes	No
<b>Additional cost for using</b>	Yes	No

\*depending on other ingredients

By using Purform® technology for higher-performance polyurethane adhesives and sealants with ultra-low diisocyanate monomer content, we can meet the challenges of tomorrow, today.

#### Purform® is pure

The “purity” aspect reflects our ability to engineer pure pre-polymers. The new Purform® pre-polymers allow the development of products with better performance, whilst reducing the diisocyanate monomer content to below the new lower threshold level of the REACH classification.

#### Purform® is performance

Sika’s engineers are developing new products with the Purform® prepolymers to give the performance you need to meet the challenges of tomorrow, such as more durable sealants and adhesives that also contribute to sustainability with energy saving and lower fuel consumption, whilst also being safer to apply for users.

#### Purform® is a better polyurethane

The superiority of polyurethane materials lies in their unique microstructure of fluid / flexible and cured / hardened phases, which can all be adjusted according to requirements. The new Purform® technology is highly versatile, which enables us to create high performance, reliable and durable polyurethane adhesives, and sealants. The new Purform® technology makes Sikaflex®, SikaBond® and SikaTack® systems even better.

Watch out for the new Purform® technology. The first products will be available in late 2020. In the meantime, please contact us for any more information or advice that you may require.

# GLOBAL BUT LOCAL PARTNERSHIP



## FOR MORE INFORMATION:



[www.sika.com/industry](http://www.sika.com/industry)

### WHO WE ARE

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply.  
Please consult the Data Sheet prior to any use and processing.



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