



The blaugelb silicone with the universal area of application and the added advantage of rapid further processing.

blaugelb Silicone Alkoxy UniPLUS

For the professional sealing of expansion joints on structural connections.

- **Exceptionally suited for sealing of external structural attachment, construction and expansion joints**
- **Very good processability**
- **Max. total deformation 25 %**
- **Non-corrosive, virtually odourless, solvent-free**
- **Moisture and temperature-resistant**
- **Non-fading; weather, UV and water-resistant once cured**
- **Building material class E (DIN EN 13501-1)**

Product features:

blaugelb Silicone Alkoxy UniPLUS is a one-component, neutral crosslinking sealant based on alkoxy for the professional sealing of structural attachment, construction and expansion joints. The name describes its outstanding properties: It is universally suitable for a broad range of applications and has the additional advantage of faster curing.

Thanks to its good initial adhesion, it can usually be applied without primer to almost all substrates encountered in construction. blaugelb Silicone Alkoxy UniPLUS is weather and UV-resistant and, with its permissible total deformation of 25 %, it is ideally suited for sealing the outer level of the joint. blaugelb Silicone Alkoxy UniPLUS is coatable in combination with most customary paints. A skin forms after approx. 15 to 20 minutes.

Applications:

blaugelb Silicone Alkoxy UniPLUS is permanently elastic and particularly suitable for the long-term sealing of structural attachment, construction and expansion joints on standard construction substrates. blaugelb Silicone Alkoxy UniPLUS is also suited for use for the glass sealing of wood, plastic and metal windows if the compatibility is established in the system. Edge sealing of metal elements and sealing of connecting joints at windows, doors and other components, window sills, roller shutter cases can be performed using blaugelb Silicone Alkoxy UniPLUS. blaugelb Silicone Alkoxy UniPLUS is explicitly recommended for outdoor use. blaugelb Silicone Alkoxy UniPLUS is not suitable for glazing systems that repel dirt and structural glazing. The compatibility with other sealants must be tested, particularly when refurbishing joints.

Substrates:

blaugelb Silicone Alkoxy UniPLUS exhibits very good adhesion without primer to standard construction substrates such as glass, wood, plastic, rigid PVC, steel, stainless steel, aluminium, concrete, porous concrete, plasterboard, plaster, masonry, fibre cement, coated or anodised aluminium*.

Do not use on PE, PP, PTFE. Incompatibility may occur in the event of contact with natural stone, bitumen, tar or materials containing plasticisers, e.g. soft PVC, butyl, chloroprene rubber (neoprene), insulating coatings and foams, EPDM, APTK. For applications on sensitive surfaces (e.g. mirrors), the compatibility must be checked beforehand using sufficient tests.

Product benefits:

- Exceptionally suited for sealing of external structural attachment, construction and expansion joints
- Very good processability
- Max. total deformation 25 %
- Non-corrosive
- Virtually odourless
- Solvent-free
- Very good adhesion to most conventional construction materials*
- Moisture and temperature-resistant
- Non-fading; weather, UV and water-resistant once cured
- Coatable with suitable paints*
- Building material class E (DIN EN 13501-1)

*Carry out suitable pretests.

Technical data:

Material base:	1C polysiloxane / alkoxy
Colour:	White, concrete grey, colourless
Curing system:	Polymerisation by atmospheric humidity
Building material class: DIN EN 13501-1	Building material class E
Curing speed: at 23 °C and 50 % RH	Approx. 2.5 mm / 24 hrs.
Skin formation: At 23 °C and 50 % RH	Approx. 15 to 20 minutes
Density: ISO 2811-1	1.01 g/ml colourless and white
Shore A hardness: ISO 868	Approx. 17
Max. permissible total deformation:	25 %
Change in volume: ISO 10563	-8 %
Elongation at break: ISO 8339-A	300 %
Elastic recovery: ISO 7389-A	Approx. 85 %
Processing temperature:	From +5 °C to +40 °C (substrate and ambient temperature)
Temperature resistance:	From -40 °C to +140 °C
Resistance:	Non-fading, UV and weather-resistant
Storage life:	12 months in unopened pack at +5 °C to +25 °C
Delivery form:	300 ml cartridge, 600 ml tubular bag

Product name	PU	Item no.
blaugelb Silicone Alkoxy UniPLUS white 300 ml	25 cartridges	0433182
blaugelb Silicone Alkoxy UniPLUS concrete grey 300 ml	25 cartridges	0263267
blaugelb Silicone Alkoxy UniPLUS colourless 300 ml	25 cartridges	0433183

Joint dimensions:

The joint dimensions are defined by the sum of the stresses and the mechanical properties of the building materials. The planner determines the joint dimensions, taking the permissible total deformation of the intended sealant into account. In terms of the joint width, general consideration must be given to the total deformation of the sealant (sum of compression, elongation and shear) as regards the joint width not being greater than the permissible total deformation of the joint sealant.

The following recommendations for the joint dimension refer to square joints and are taken from the specifications of the IVD information sheet no. 3-1 as well as the installation guide from the RAL Quality Assurance Association for Windows and House Doors (RAL-Gütegemeinschaft Fenster und Haustüren) 2014 edition, chap. 6.4.1. There you will find further detailed notes, including on the calculation of the required joint width.

Recommended joint dimensions:	Joint width	Joint depth*
min.	10 mm	6 mm
	20 mm	10 mm
max.	30 mm	15 mm

*Guiding value on joint dimension: The joint depth corresponds to approx. half of the joint width, but at least 6 mm

Joints with three flanks (“three-point adhesion”) and triangle joints are not suitable for absorbing movement and are therefore to be avoided. Sealants should be used with a suitable backfilling material (closed-cell cord) to limit the depth of the joint and ensure a two-point adhesion.

Calculation of the consumption amount:

Example: Joint with 20 mm width and 10 mm depth, 10 % excess material that accumulates when smoothing off.

$10 \text{ mm} \times 6 \text{ mm} = 60 \text{ ml/m} + 10 \% = 66 \text{ ml/m}$ material consumption.

A 300 ml cartridge is sufficient for a joint length of approx. 4.55 m. This calculated value may deviate depending on the real-world conditions.

Preparation and processing:

The substrate must be firm, stable, clean and free of grease, dust and loose parts. All traces of residue from separating agents used in production or protective films used in transit must be removed from the substrate. The blaugelb Silicone Alkoxy UniPLUS also adheres to a slightly moist (not wet) substrate.

Before application, the suitability of the material for the intended application is to be verified through appropriate tests performed by the customer. We recommend masking the edges of the joint with suitable adhesive tape.

Fill the joint bubble-free with the blaugelb Silicone Alkoxy UniPLUS, then spray with a suitable smoothing agent and smoothen before a skin forms. Pull off the adhesive tape promptly and remove excess smoothing agent.

Ensure there is good ventilation so that the blaugelb Silicone Alkoxy UniPLUS can cure. Avoid three-point adhesion in the joint as this could otherwise result in stresses that may cause the sealant in the joint to tear.

Processing temperature: +5 °C to +40 °C. Processing should be performed at constant temperatures to the greatest possible extent in order to prevent the formation of cracks. Curing takes place by reaction with atmospheric humidity. Curing slows down at low temperatures and/or if atmospheric humidity is low.

blaugelb Silicone Alkoxy UniPLUS is non-fading. Long-term contact with chemicals is to be avoided. If the effect of chemicals or high temperatures leads to colour variations in individual cases, the function or durability is generally not impaired.

Cleaning and repair:

Before curing, cleaning can be performed using turpentine substitute or alcohol; after curing, the blaugelb Silicone Alkoxy UniPLUS can be removed with a silicone remover or mechanically. Repairs to the joint of the blaugelb Silicone Alkoxy UniPLUS can be performed using the same material.

Delivery and storage form:

Store in the original packaging in a dry place and protect against effects of frost and heat. Can be stored for 12 months at a storage temperature between +5 °C and +25 °C.

Disposal:

The disposal conforms with the national specifications. European waste key number (EAK): 080410

Safety note:

Please note the Safety Data Sheet.

Only for trade use.