

Hard Fix Glue



Characteristics

- Universal Hybrid MS polymer based adhesive sealant
- Joint adhesive
- Jointing and gluing
- Solvent, isocyanate, and phthalate free
- Extremely strong and permanently elastic
- Excellent U.V., weather and aging resistance
- Very good moisture resistance and not sensitive to frost
- Anti-fungal
- Bonds also with slightly moist supports
- Suitable for use with natural stone, metal, wood- and brick work, ceramics
- Does not cause any corrosion in metal joints
- Paintable with most water and solvent based paints
- Skin formation time (23°C at 50% RH) 40 min
- Temperature resistance -40°C - +90°C



Applications

- Gluing and sealing of skirting boards, steps, doorsteps, protective profiles, covers, prefab elements, kitchen worktops, ...
- For interior and exterior use.
- All jointing where flexibility is important:
 - Sealing of horizontal and vertical expansion and connecting joints (max. width 50mm).
 - Sealing of joints and cracks in car, caravan, train, and bus construction, in containers, in air-conditioning installations...
 - Sealing between frame and wall, connecting joints of window and door frames, in facades and shop fronts...
 - Sealing and gluing work in veranda's, bathrooms, kitchens, etc.
 - Sound proofing between concrete and drainpipes.
- Bonds without primer on almost all materials used in the construction industry, such as aluminum, galvanized and stainless steel, zinc, copper, natural stone, HPL panels, treated wood, gypsum, various synthetic materials, glass (not for glazing joints), etc.
- Can also be used on absorbent surfaces such as concrete and brick. A primer is recommended for optimal adhesion.
- Meets the requirements of FDA code 21 §177.2600 (e) for food contact.

Standard available in white.

Other colors available with a minimum order of about 1880 pcs



Certificates



Technical Characteristics

Basic Ingredient	MS Hybrid polymer
Curing system	by means of humidity
Number of components	1
Skin formation time (23°C and 50% RV)	40 min.
Vulcanisation rate (23°C and 50% RV)	2.5 - 3mm/24h
Density: ISO 1183	1.48 g/ml
Processing temperature	+5°C - +40°C
Shelf life, in original packaging in dry conditions between +5°C - +25°C	12 months
Shore A hardness: ISO 868	40
Joint movement capacity: ISO 11600	25%
Modulus at 100% elongation: ISO 8339	0.8 N/mm ²
Elongation at break: ISO 8339	230%
Modulus at break: ISO 8339	1.10 N/mm ²
Water vapour permeability: ISO 15106	$\mu = 6946$; $sd = 4.9m$
Solvent & isocyanate content	0%
Dry matter content	ca. 100%
Temperature resistance	-40°C - +90°C
Very good moisture resistance and not sensitive to frost	



Method of use

Preparation

The support must be fixed and rigid enough. The support may be slightly damp. The materials to be joined must be clean and free from dust and grease. If necessary, degrease using MEK, alcohol, or ethanol. It is advisable to do bonding tests. It is the user's responsibility to check whether the product is suitable for his application. Our technical department could be consulted.

Primers

For strongly absorbent supports it is recommended to use Primer.

Application

- Use in well-ventilated rooms. Good ventilation is important during application and vulcanization of the product.
- As adhesive: Apply Hard Fix Glue with the supplied nozzle in strips or dots to the base or on the element to be bonded. The strips must be applied in vertical rows. Apply the strips parallel to each other, to allow the humidity to reach the adhesive between the strips. Bring together the parts to be joined as quickly as possible, at least within 10 minutes (this depends on the temperature and relative humidity level). The parts can at this stage still be adjusted. Finally, push down one over the other well or tap with a rubber hammer. It is advised to have a gap of 3.2 mm between the parts to be bonded (spacer blocks or pieces of foam tape may be used), to allow the adhesive to smooth out any distortions (especially important in exterior use or under humid conditions). If the adhesive layer does not have to take up any, or only must take up a slight mutual distortion between the joining parts, a thinner adhesive layer (at least 1.5 mm) will suffice (for example in interior applications).
- As sealant: Provide shallow joints (on the floor) with a self-adhesive tape or foam tape to prevent triple-sided bonding. The adhesive depth of the movable joint should amount to approx. 2/3 of the joint width. Joints that are too deep should be filled with suitable filler foam (PE or PU-filler foam). With deep floor joints, it is advisable to use a strong PU-filler foam as back-up material. With floor joints, that are subjected to high mechanical load, the sealant should be applied deep. It is better to apply the sealant at an angle sloping from the floor surface to the adhesive surface (rim sides). The sealant should only bond at the sides of the joint.

Joint dimensions

The necessary width of a dilation joint depends on the temperature fluctuation, properties of the material and the dimensions of the construction elements. Apply at least a joint width of 6 mm.

Joint width	Joint Depth	Allowed difference
6 mm	6 mm	~ 1 mm
8 mm	8 mm	~ 1 mm
10 mm	6 - 8 mm	~ 2 mm
15 mm	10 mm	~ 2 mm
20 mm	10 - 12 mm	~ 2 mm
25 mm	15 mm	~ 3 mm
35 mm	20 mm	~ 3 mm
50 mm	30 mm	~ 3 mm

Tooling

If desired, smooth surface before skin formation with the soap water and a scraper. Only wet the scraper not the joint.

Cleaning

Any adhesive that may protrude along the edges can be removed using a stopping knife. Adhesive residue that has not yet dried, can be removed using Polysto Cleaner. Cured adhesive must be removed mechanically.

Painting

Paintable with most water and solvent based paints. Can be painted wet on wet. After 48 hours, the surface must be cleaned first before it can be painted. Pre-testing is necessary. Alkyd paints might require an extended drying time.

SAFETY

Please refer to the safety data sheet

LIMITATIONS

- Not suitable for joints with a width or depth < 5 mm.
- No adhesion on PE, PP, PA, PTFE (Tefl on®) and bituminous substrates.
- Not suitable for applications with permanent water contact and in rooms with permanent high relative humidity.
- Not compatible with the edge seals of insulating glazing and the PVB fi lms of safety glass. Avoid direct contact.

TECHNICAL APPROVALS

SNJF (Société National du Joint Français): Mastic type élastomère classe 25E

ATG (Belgian technical approval)

Leeds certifi cate for low VOC (tested by Eurofi ns)

FDA code 21 §177.2600 (e) (Ianesco report No. 15/19449) CE

EC1PLUS

FACADE n° 3749

ATG 12/2643

Application tools

600 cc caulking gun



Food Safe Sealant

White, transparent, transparent grey, ral9002 and Stainless Steel



Product description

PolySto Food Safe Sealant is a high-quality, neutral, elastic one-component silicone based joint sealant containing a special fungicide with large spectrum of activity effective for fungi as *Lentinus tigrinus*, *Streptovercillum reticulum*, *Aspergillus niger* and *Alternaria alternata*.

Properties

- Very easy to apply
- Excellent moisture and mold resistance.
- Colorfast and UV resistant
- Permanent elastic after curing
- Very good adhesion on many materials
- Long open time.
- Impervious to mold, contains ZnP (biocide with fungicidal action)
- Low modulus
- Corrosion free

Applications

- Joints in sanitary rooms (on synthetic baths and tubs) and kitchens.
- Top sealing in glazing.
- Sealing in refrigerators and container construction
- Sealing in air conditioning systems.
- Application with a 600ml caulking gun



Available colours

White, transparent, transparent grey, ral9002 and Aluminum

Packaging

600ml cartridges

Shelf life

18 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C.

Substrates

Substrates: all usual buiding substrates, ceramic tiles, enamel, stainless steel, acrylic baths, glass, corian, ...

Nature: clean, dry, free of dust and grease

Surface preparation: porous surfaces in water loaded applications should be primed with Primer. No primer needed for non-porous substrates.

There is no adhesion on PE, PP, PTFE (Teflon) and bituminous substrates. We recommend a preliminary compatibility test.

Technical Data

Basis	polysiloxane
Consistency	stable paste
Skin formation* (20 °C / 65% R.H.)	ca. 9 min
Curing speed (20 °C / 65% R.H.)	ca. 2 mm/24h
Hardness	25 -5 Shore A
Density	ca. 1.03 g/ml (transp, brilliant white) ca. 1.025 g/ml (colours)
Elastic recovery: ISO 7389	> 80%
Maximum allowed distortion	25%
Temperature resistance	-60°C - 180°C
Max. tension: DIN 53504	1.40 N/mm ²
Elasticity modulus 100%: DIN 53504	0.39 N/mm ²
Elongation at break: DIN 53504	700%
Application temperature	5°C - 35°C
Curing system	moisture curing

Joint dimensions

min. width for joints: 5 mm

max. width for joints: 30 mm

min. depth for joints: 5 mm

recommendation sealing jobs: joint width = 2 x joint depth

Application method

Application method: with a manual- or pneumatic caulking gun.

Cleaning: clean with white spirit or Surface cleaner

Finishing: with a soapy solution

Repair: with the same material

Health- and safety recommendations

Take the usual labour hygiene into account.

Consult the packaging label for more information.

Remarks

* Do not use on polycarbonate.

* The sanitary formula should not replace regular cleaning of the joint. Excessive contamination, deposits or soap remainings will stimulate the development of fungi.

* A total absence of UV can cause a color change of the sealant.

* In an acid environment or in a dark room, white silicone can slightly turn yellow. Under the influence of sunlight it will turn back to its original color.

* We strongly recommend not to apply the product in full sunlight as it will dry very fast.

* When finished with a finishing solution or soapy solution, make sure that the surfaces are not touched by this solution. This will cause the sealant not to adhere to that surface. Therefore we recommend to only dip the finishing tool in this solution.

* Do not use in applications where continuous water immersion is possible.

Standards

* IBE - BVI Direct Food Contact Report CFP-13.009C

*Report IANESCO 3812-food label for applications in food surroundings

*Report 551, conformity to FDA CFR 21 section 177.2600 (e)

Hygiseal 3.1



Product description

HygiSeal 3.0 is a high quality, neutral, elastic, 1-component, low viscosity, construction joint and adhesive sealant based on MS-Polymer.

Properties:

- Fast curing: skin formation after 15 min, core curing 2-3 days
- Good applicability and tool ability
- Fungus resistant connection
- Resistant to high-pressure cleaning
- Permanently elastic after curing
- Good weather and UV resistance
- Good adhesion on all surfaces (except PE, PP and PTFE).
- Excellent resistance to many chemicals
- Free of solvents and isocyanate, PU free
- Easy to tool, extrude (even at low temperatures) and finish in all weather conditions.
- Can be painted with all water-based paints and many other systems (to be tested)
- In compliance with FDA CFR 21 177.2600 (extracts in distilled water)



Applications

- Elastic bonding between surfaces (chemical welding in structural bonding applications where a tough and rigid bond is required).
- Food industry, consumer goods, logistics & distribution, Cleanroom & healthcare, etc...

Substrates

... ABS, metals, aluminum, plastics, suitable for different porous and non - porous substrates like CleanRock®, FRP, sandwich panels, wood, MDF, chipboard, concrete, stone, metal, plastics, PU foam, polystyrene foam, mineral wool and other conventional materials in construction.

Not suitable for PE, PP, PTFE (e.g. Teflon®), bituminous substrates, copper or copper containing materials such as bronze and brass.

We recommend a preliminary adhesion test on any substrate.

Application method: With manual- or pneumatic 600cc caulking gun.

Finishing: With a soapy solution.

Repair: With the same material.

Shelf life

12 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C.

Packaging

Colour:

RAL 9016
Traffic White

RAL 7004
Signal Grey

RAL 9002
Grey White

Packaging: 600 ml foil bag

Technical data

Basis	Hybrid Polymer
Consistency	Stable paste
Curing system	Moisture curing
Skin formation* (23°C/50% R.H.)	Ca. 15 min
Curing speed * (23°C/50% R.H.)	1,8 mm → 2,3 mm/24h
Hardness**	Ca. 90 ± 5 Shore A
Density	1,72 g/ml
Viscosity	Ca. 100 cP
Elastic recovery (ISO 7389)**	> 75 %
Maximum allowed distortion	± 20 %
Shear strength**	2,75 N/mm ² (Measured on AlMgSi, 2mm thickness, 25x25, 10mm/min)
Temperature resistance**	-40 °C → 90 °C
Application temperature	5 °C → 35 °C

Application method

Application method: With manual- or pneumatic 600cc caulking gun.

Cleaning: Clean with PolySto Cleaner or HygiSwipes immediately after use

Finishing: With a soapy solution.

Repair: With the same material.



Health- and safety recommendations

Take the usual labour hygiene into account. Use only in well-ventilated areas. Consult the packaging label for more information.

Remarks

- HygiSeal 3.0 may be overpainted with water based paints, however due to the large number of paints and varnishes available we strongly suggest a compatibility test before application.
- When painted with oxidative drying paints disturbances in the drying of the paint may occur (we recommend to do a compatibility test before application).
- Remove all traces of soap (tooling) because it will harm the adhesion of the paint onto the sealant.

Standards and certificates

- In compliance with FDA CFR 21 177.2600 (extracts in distilled water)

Liability

The content of this technical data sheet is the result of tests, monitoring and experience. It is general in nature and does not constitute any liability. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application.

Chemical Anchorage

Product description

Polysto Chemical Anchorage is a two-part chemical anchoring resin designed to anchor threaded rods and rebar in concrete with the salient design feature of normal extrusions and gelling at higher temperatures.

This sophisticated chemical anchoring product is fast curing injection system, delivered through a mixing nozzle directly into the fixing hole.

Used widely for installations in high temperature and humidity situations.



Characteristics

- Suitable for medium loads for non-critical applications.
- Normal working times in high temperature applications (use between +5°C and +45°C). Use in extremely warm environments and fixing holes.
- Extremely versatile in masonry, hollow, aerated concrete. Crack and gap filling repairs in concrete, vertical or horizontal.



Key benefits

- May be extruded normally even when the ambient temperature is 45°C
- Medium and heavy-duty load applications
- Good durability
- Ideal for indoor and outdoor usage

Physical properties

Mixed Colour - Grey

Density - 1.71 kg/m³

Compressive Strength - 43.5 N/mm² (EN ISO 604)

Approvals / certifications / testing

- 15/0008 - ETA Option 7 Non-Cracked Concrete. Includes flooded holes.
- 19/0496 - ETA ETAG 029 Hollow Wall / Masonry Installations.
- CE Certified 1404-CPR-2586 - ZAG, Slovenia.
- ITB Approval (Poland) 0978/W
- LEED tested 2009 EQ c4.1 SCAQMD rule 1168 (2005.)
- VOC A+ Rating (Volatile Organic Content)



0978/W

Packaging

410 ml cartridges

Working and hardening times

Base material temperature	5°C	15°C	25°C	35°C	45°C
Gel working time	45'	18'	10'	5'	2'
Curing time dry concrete	120'	75'	45'	30'	15'
Curing time wet concrete	x 2	x 2	x 2	x 2	x 2

Storage / shelf

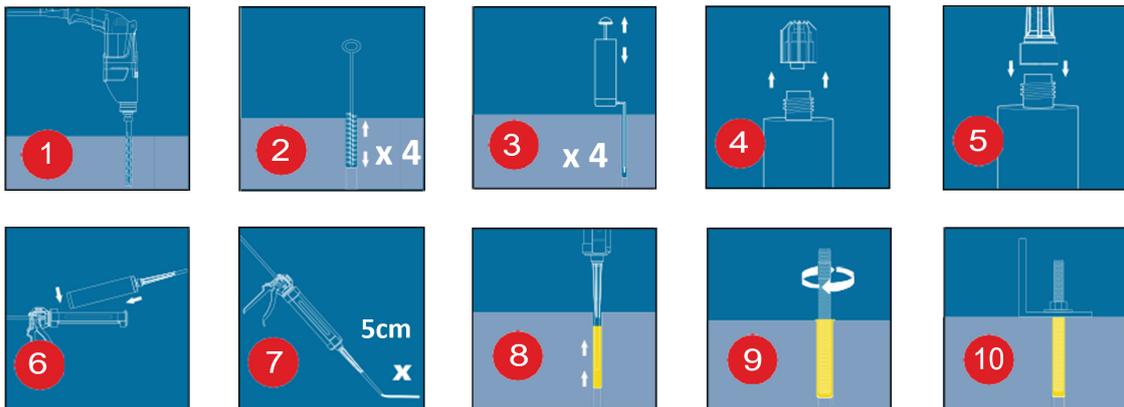
This product should be stored between +5 °C & +25 °C. Avoid Direct Sunlight
The Shelf life of the product is 18 months from the manufacture date.

Application method

The cartridges are extrude using a specially designed extrusion tool.



Installation



Hygiwipes

(available soon)



Product description

Swipex is a cleaning wipe of extra big size.

Properties

- Fast and permanent removal of fresh, non cured remains of adhesive and sealants.
- Cleans uncured sealant from tools and material.
- Safe in use.

Applications

- Dissolves fresh und uncured adhesion and sealant remains (Silicone, MS Polymer, PU, Acryl...) as well as PU-foam , paint etc.
- Cleaning of dirty working tables and surfaces.

Shelf life

2 years in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C. After opening close properly and consume quickly.

Substrates

On smoothed surfaces. Always apply a preliminary compatibility test on critical subfloors. Not on porous subfloors like untreated wood. Swipex can not be used to prepare surfaces before applying sealants and adhesives.

Application method

Take a wipe out of the packaging and re-seal immediately. Wipe over the stain until it disappeared and use a dry cloth to polish the surface.

Packaging: Plastic tub containing 50 wipes. Plastic tub containing 100 wipes.

Health- and safety recommendations

Take the usual labour hygiene into account. Consult label and material safety data sheet for more information.

Liability

The content of this technical data sheet is the result of tests, monitoring and experience. It is general in nature and does not constitute any liability. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application.

Tools and accessories

Manual caulking gun

Suitable for Hard Fix Glue, Food Safe Sealant and Hygiseal 3.0



Gun

Pneumatic caulking gun

Suitable for Hard Fix Glue, Food Safe Sealant and Hygiseal 3.0



Gun 2

Battery driven caulking gun

Suitable for Hard Fix Glue, Food Safe Sealant and Hygiseal 3.0



Gun 3

Manual extrusion gun

Suitable for Chemfix



Pist

Pneumatic extrusion gun

Suitable for Chemfix



Pist 2

Smoothing tool

To smoothen Food Safe Sealant and Hygiseal 3.0



Glat

Hygiseal Tape

For sticking along the edges of a joint to obtain a nicely finished joint



Hygiseal tape

HygiClean

For removing natural pollution such as: nicotine, insects, grease, dirt, light resins and even shoe polish and rubber stripes. Safe for all materials and easy to apply as a foam, also for vertical application, or as a liquid. Contains no abrasives and leaves no streaks or stains



Hygiclean

HygiGum

In combination with HygiClean you can remove stubborn dirt



Hygigum

Backing rod

To apply in joints wider than 4mm for the application of Hygiseal 3.0



Seal