

**WORLDWIDE
SUPPLIER
OF INSULATING
GLASS SEALANTS
AND COMPONENTS**

www.tenachem.com





ABOUT TENACHEM

One of the leading European
manufacturers of sealants
for the glass industry



TENACHEM company was established in 1991 and since then has expanded to become one of the leading European manufactures of sealants for the glass industry, the largest sealant producer in the Baltics.

TENACHEM supplies its products to a number of large international glass processing companies. The company's strong position is due to its pioneering R&D and its ***modern production facility located in Dobeles, around 70 kilometers from Riga, Latvia.*** The company is strongly export-oriented and its home market is the EU. TENACHEM exports 99% of its products to around 40 countries worldwide.

Since 2015, TENACHEM has been part of the Soudal Group. With this acquisition, Soudal has added a new technology to its already impressive product portfolio.

TENACHEM is an important knowledge and production center to support the growth that the Soudal Group wishes to achieve over the next few years in the insulated glass segment.

TENACHEM will be further developed as the center of excellence for glass sealants of the Soudal Group. With this investment, Soudal and TENACHEM have increased their mutual expertise in the technical sealants market, allowing them to offer a broader range of products to customers. ***With 79 affiliates and sales in 140 countries across the world*, Soudal offers the perfect springboard for marketing TENACHEM products globally.***

In 2023 Soudal had 29 production sites across the world and around 4100 employees. These numbers are gradually increasing.

* Data from 2023

TENACHEM

The largest construction sealant
producer in the Baltics



PROUD OF OUR HISTORY

TENACHEM has been a reliable partner for its customers and suppliers for more than 30 years



1991

SIA "TENAX"
was established

2007

The end of 2007 – SIA "TENACHEM"
was established, as a daughter
company of SIA "TENAX"

2015

July, 2015 – SIA "TENACHEM"
was acquired by the Soudal group



SIA "TENACHEM" is one of **the top 5**
leading producers of insulating
glass sealants in the world

TODAY

 Dobeles, Latvia

QUALITY CONTROL

Product & process quality management



Incoming raw-material quality controlling process

1

4



Production-process controlling system

2

5



A multi-level end-product quality controlling system

3

6

CERTIFIED
ISO 9001





ISO STANDARDS FOR THE ORGANISATION'S MANAGEMENT SYSTEM:



Qualified and well-trained
employees



Up-to-date technical
documentation package



Exact and professional use
of instructions and support
from laboratory specialists

CERTIFIED

ISO 9001
ISO 14001
ISO 45001
ISO 50001



Management system standard
ISO 9001:2015

Environmental management standard
ISO 14001:2015

Occupational health and safety
management standard
ISO 45001:2018

Energy management standard
ISO 50001:2018



OUR LABORATORY

TENACHEM is the center of excellence for glass sealants of the Soudal Group

We continually invest ***in the technical improvement and development of new products.*** The skills of our highly qualified chemists are the driving force for the continuous reinvention of production processes, which are smarter, faster, more energy-efficient and produce less waste.

- Long term vision for innovations
- Latest technologies and equipment
- Innovative and competitive solutions
- Technical support and assistance for customers



RESEARCH & DEVELOPMENT

Research & Development is deeply rooted in the business culture of TENACHEM. Extensive investments to strengthen R&D expertise and adopt new technology with, for instance, creative analysts and engineers, is the reason for our company's success. The speed of product innovation is high. When developing new products, TENACHEM is not restrained by limitations on raw materials or technology. Product innovation is specifically driven by:

- solutions required by the end user. By recognising their needs at an early stage, the correct tailor-made solutions can be developed;
- raw-material availability and prices;
- statutory (European) standards for product safety, building directives and certification: **IFT Rosenheim, TÜV, SSV, CSTB** and associations.

SUSTAINABILITY

TENACHEM continuously works on sustainability topics to provide high quality products and services without comprising human and environmental safety.

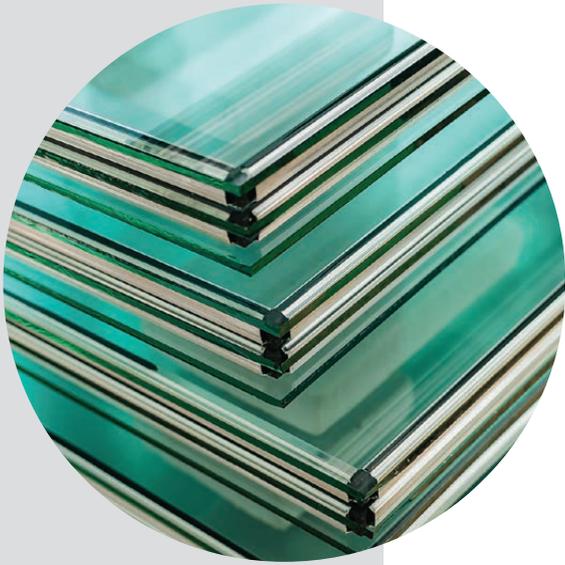
The latest steps towards more sustainable future:

- Prepared Environmental Product Declarations (EPD) for TENAGLASS® PS and PU secondary sealants;
- Production site utilizes > 40% of green electricity;
- ~90% of TENAGLASS® IGU secondary sealant raw materials are delivered and stored in re-usable packaging;
- Continuous work on increasing the proportion of local raw materials;
- We offer re-collecting service of TENAGLASS® PS and PU 200L A component barrels for repeated usage of packaging;
- New energy-efficient warehouse project.

TECHNICAL SERVICE & CONSULTANCY



BENEFITS PACKAGE:



- Products of the highest quality meet the standards
- Quality control system
- All necessary documentation and certification
- Technical service assistance in setting and adapting equipment and technical advice
- Cooperation with IGU-sealant equipment producers - LISEC, BYSTRONIC, FOREL, etc.
- Central customer service in various languages
- Product compatibility tests and documentation
- Flexible logistics system
- Soudal warehouses – quick delivery
- Product liability insurance from the Soudal Group
- Participant of EcoVadis business sustainability rating platform



3

Curing process



4

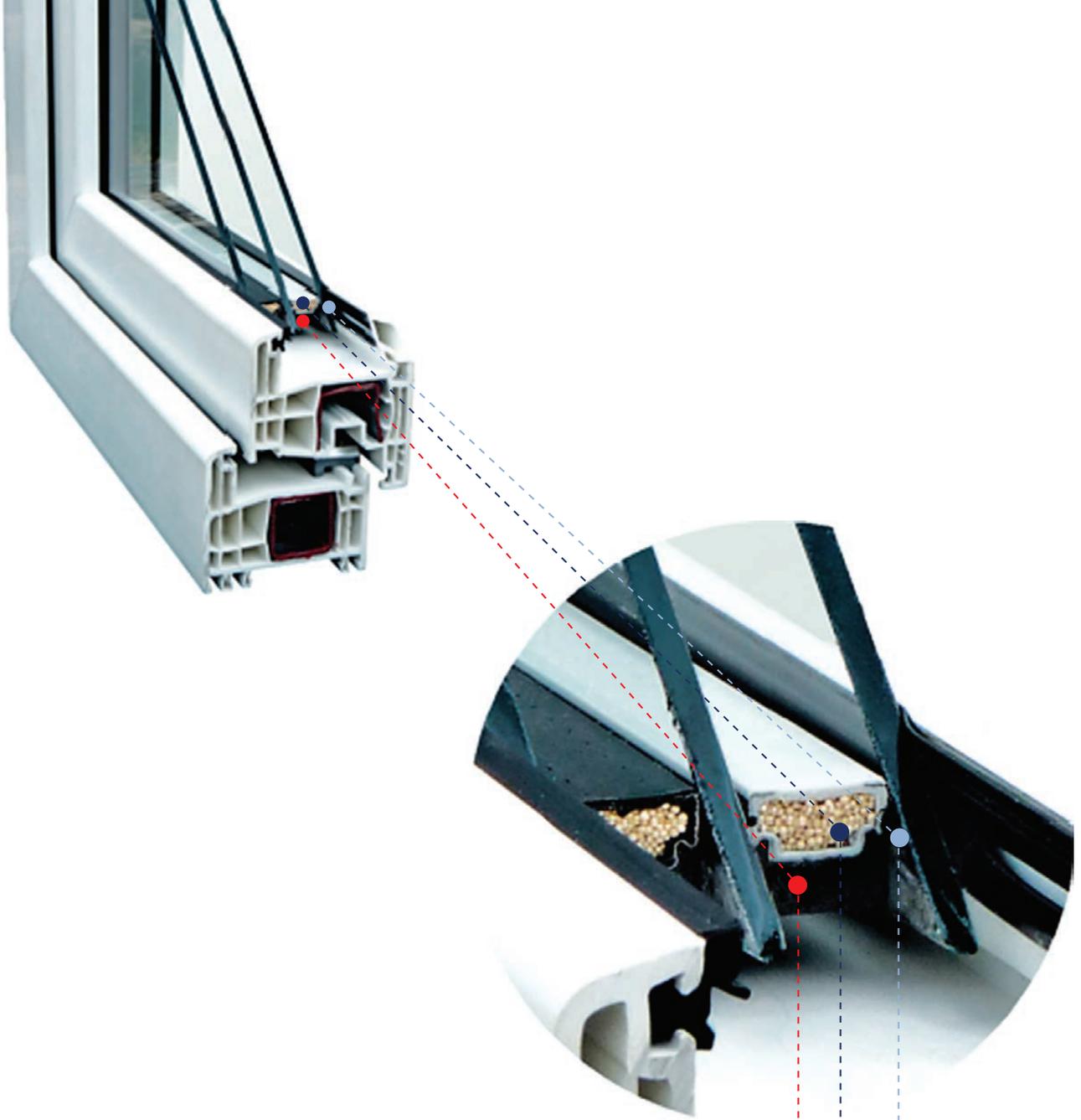
Certification

Local representatives in European countries:

Germany, Austria, Switzerland, France, Spain, Italy, Portugal, Netherlands, Belgium, Poland, Czech Republic, Slovakia, Romania, Hungary, Lithuania, Ukraine, and other European countries.



TENACHEM PRODUCTS FOR IGU



3

Secondary sealant
TENAGLASS® PU and PS

2

Molecular sieve
TENASIEVE®

1

Primary sealant
TENAGLASS®-3 and TENAGLASS®-PIB

TENAGLASS®

PS EN

PS SD

Two-component secondary polysulphide-based sealants

ADVANTAGES:

- Fine-tuned application properties to meet the expectations of IGU manufacturers
- Good adhesion to glass and spacer materials (aluminium, galvanized steel, stainless steel, and various warm edge spacers)
- Durable in normal weather conditions
- Excellent compatibility with butyls
- Provides the structure with mechanical strength
- Protects primary sealant layer
- TENAGLASS® PS sealants have environmental performance declaration (EPD)

SPECIFICATIONS:

- Great material **processability**,
- **Solvent free**,
- Specially developed **for secondary sealing** of insulated glass units,
- Low gas and water **vapour permeability**,
- **Good resistance** to most oil products and solvents,
- Component B available in **20l** and **200l** drums.

For the use of the product in combination with other sealants and adhesives the approval of the manufacturer is required.

Compatible with IGU inner sealants TENAGLASS® and direct glazing adhesive TENABOND.

TECHNICAL DATA:

appearance:

Component A (base) –
light grey, thixotropic
compound

Component B (catalyst) –
black compound

shelf life / storage:

9 months from production
date in unopened, undamaged
original packaging, in a dry
place in a temperature range

from +5°C to +30°C

chemical base:

Two-component polysulphide
Chemical curing of mixed components



TENAGLASS® PS EN

Certificates:

EN 1279-2018, RAL, Applus, SSV
Based on 100% thiocol

TENAGLASS® PS SD

Certificates:

EN 1279-2018
Based on 100% thiocol

PACKAGING

Component	A	B	B
Litres in drum	200 l	20 l	200 l
Drum quantity on the pallet	2 pcs	18 pcs	2 pcs

TENAGLASS®

PU FR/S MPU EN

PU BE

Two-component secondary polyurethane-based sealants

ADVANTAGES:

- Fine-tuned application properties to meet the expectations of IGU manufacturers
- Good adhesion to glass and spacer materials (aluminium, galvanized steel, stainless steel, and various warm edge spacers)
- Durable in normal weather conditions
- Excellent compatibility with butyls
- Provides the structure with mechanical strength
- Protects primary sealant layer
- TENAGLASS® PU FR/S and PU BE sealants have environmental performance declaration (EPD)

SPECIFICATIONS:

- Great material **processability**,
- **Solvent free**,
- Specially developed **for secondary sealing** of insulated glass units,
- Low gas and water **vapour permeability**,
- **Good resistance** to most oil products and solvents,
- Component B – **paste and liquid**
- Component B available in **20l** and **200l** drums.

For the use of the product in combination with other sealants and adhesives the approval of the manufacturer is required. Compatible with IGU inner sealants TENAGLASS® and direct glazing adhesives TENABOND®.

TECHNICAL DATA:

appearance:

Component A (base) – light grey, thixotropic compound
 Component B (curing agent) – black (liquid or paste on request, see labelling)

shelf life / storage:

6 months from production date in unopened, undamaged original packaging, in a dry place in a temperature range from +5°C to +30°C

chemical base:

Two-component polyurethane
 Chemical curing of mixed components



TENAGLASS® PU FR/S

Certificates:

CEKAL, EN 1279-2018, Applus, RAL
 Based 100% on polybutadiene

TENAGLASS® PU BE

Certificates:

CEKAL, EN 1279-2018, Applus, RAL
 Based 100% on polybutadiene

TENAGLASS® MPU EN

Certificates:

EN 1279-2018
 High polymer content based on own synthesis and polybutadiene

PACKAGING

Component	A	B (paste or liquid)	B (paste or liquid)
Litres in drum	200 l	20 l	200 l
Drum quantity on the pallet	2 pcs	18 pcs	2 pcs

TENAGLASS®-3

TENAGLASS®-PIB

One-component primary polyisobutylene-based sealants

ADVANTAGES:

- Excellent adhesion to glass and metal spacer materials (aluminium, galvanized steel, stainless steel, and various warm edge spacers)
- Very low moisture-vapour transmission rate
- Very low gas permeability
- Acts as a thermal break
- No cleaning or purging of dispensing equipment required
- High ageing resistance
- No shrinkage
- Good compression resistance
- Solvent-free

SPECIFICATIONS:

TENAGLASS®-3 and TENAGLASS®-PIB are polyisobutylene-based hot-melt sealants specially formulated for use in the production of insulating glass units. They should always be used as a primary sealant together with compatible secondary polysulphide or polyurethane sealant. The resulting sealed units then adhere to the requirements of EN 1279-2018, Parts 2 and 3.

TENAGLASS®-3 and TENAGLASS®-PIB are compatible with all TENAGLASS® secondary sealants. For the use of the products in combination with other sealants and adhesives the approval of the manufacturer is required.

TECHNICAL DATA:

consistency:

Solid compound,
can only be applied at
elevated temperatures
using a heated
butyl extruder

shelf life / storage:

24 months from production
date in unopened,
undamaged original
packaging, in a cool, dry
place in a temperature
range from +5°C to +25°C

chemical base:

Polyisobutylene-based



TENAGLASS®-3

Certificates:

EN 1279-2018, RAL, Applus, UNI
Sealant with hard body
Suitable for triple glazing

TENAGLASS®-PIB

Certificates:

CEKAL, EN 1279-2018, RAL, Applus, UNI
Sealant with soft body
Suitable for flexible spacer applications

Packaging	Cardboard cylinder	Metal drum
Unit net weight	7 kg	200 kg
Qty on the pallet	80 pcs	2 pcs

TENASIEVE®

Molecular
sieve



ADVANTAGES:

- Controlled pore size
- High water adsorption capacity even at low temperatures (low dew-point temperatures)
- Low nitrogen and air adsorption
- Helps to improve the lifetime and efficiency of the insulating glass units
- Product is supplied in recyclable packaging
- Compliant with standard EN 1279
- Suitable both for manual and automated filling systems
- Can be used in spacer bars of various size

SPECIFICATIONS:

TENASIEVE® is 3Å molecular sieve which is specially tailored to fulfil the requirements of the production of insulating glass units. TENASIEVE® is intended for use in the production of insulating glass units in conjunction with solvent-free sealants. The unique structure of the aluminosilicate crystal lattice ensures efficient adsorption of water molecules and prevents adsorption of gases inside the cavity of insulating glass unit, e.g., nitrogen or oxygen molecules, because their size is larger than 3 angstroms.

TECHNICAL DATA:

appearance:

Beige beads

shelf life / storage:

At least 48 months for product in drums and not less than 24 months from production date for product in boxes in unopened, undamaged original packaging, in a dry place.

available particle size:

0.5 – 0.9 mm (25 kg or 150 kg)

1.0 – 1.5 mm (25 kg)



For this reason insulating glass units filled with TENASIEVE® exhibit low dew point temperatures over a long period of time and do not undergo significant pressure changes inside the insulating glass unit cavity due to rapid temperature fluctuations which could cause pane deflections or even glass breakage.

TENASIEVE®

Certificates:

CEKAL, EN 1279-2018, RAL, Applus

Packaging	Cardboard box	Metal drum
Qty on the pallet	24 pcs	2 pcs
Particle size	0.5-0.9 or 1.0-1.5 mm	0.5-0.9 mm
Unit weight	25 kg	150 kg

TENABOND

MS polymer-based
adhesive for Insulated
glass bonding

ADVANTAGES:

- Applicable with dispensing gun in a wide temperature range
- Excellent resistance to flow in vertical joints
- Excellent adhesion to most of PVC profile systems without the use of primer
- High weather resistance
- Retains elasticity in a wide temperature range
- Does not release silicone oils
- Free of isocyanates, silicones and solvents
- Non-corrosive
- Odourless
- Negligible shrinkage

SPECIFICATIONS:

Ready for use one-component, MS Polymer® based adhesive for insulated glass bonding. This product is intended for professional use only. Product can be easily applied by using manual dispensing guns as well as industrial adhesive dispensers. Compatible with all insulating glass sealants TENAGLASS®. For the use of the product in combination with other sealants the approval from the manufacturer`s technical department is required.



TECHNICAL DATA:

appearance:

Thixotropic compound
(available in black,
white and grey colour).

shelf life / storage:

18 months, stored in
unopened, undamaged
original packaging, in a
dry place in a temperature
range from +5°C to +30°C

chemical base:

One component
MS Polymer®,
moisture curing

packaging:

600 ml laminated foil
sausages, supplied
in cardboard boxes.
One box contains
15 sausages.

This adhesive cures in
a reaction with air moisture.
After curing it has good
strength-strain properties
and excellent adhesion
to glass, PVC and other
polymer materials, wood,
metals and to all TENAGLASS®
secondary sealants.
Recommended for
self-cleaning glass coatings.

TENABOND

124M (BLACK, GREY, WHITE)

Packaging	600 ml sausage
Qty on the pallet	50 boxes (750 pcs)



TENASOL UNI

Cleaning agent
for TENAGLASS®
secondary sealants

ADVANTAGES:

- Effectively cleans steel surfaces from components of TENAGLASS® polyurethane and polysulphide sealants
- Does not damage dispensing system gasket materials during normal cleaning cycle
- High flash point
- Does not contain chlorinated hydrocarbons and NMP (N-Methylpyrrolidone)



SPECIFICATIONS:

TENASOL UNI is a cleaning agent for TENAGLASS® IGU sealants (cleans PU/MPU A component, PU/MPU B component, PU/MPU A+B mixture, and PS B component). It is specially designed for cleaning of dispensing systems in the insulating glass unit production.

For the use of the product with other sealants, the approval of the respective sealant manufacturer is required.

TECHNICAL DATA:

shelf life / storage:

12 months, stored in
unopened, undamaged
original packaging, in a
dry place in a temperature
up to +30°C

packaging:

30-litre plastic container



TENASOL UNI

Packaging	30-litre plastic container
Qty on the pallet	24

TENACLEAN

Smoothing and cleaning agents for PVC window and door manufacturers

ADVANTAGES:

- 4 exposure levels for different applications
- fast-drying
- fast-acting



SPECIFICATIONS:

TENACLEAN smoothing and cleaning agents are designed for scratch and dirt removal from most types of PVC window and door frames, sills, cladding, panels and trims and a range of plastics (e.g., PS, ABS, PMMA, PC). TENACLEAN 60 can be used to clean and degrease powder-coated, anodized, metal and foil-laminated surfaces.

The compatibility of the products with the treatable surfaces must always be tested prior to use.

For full information on the TENACLEAN products and their application please refer to technical data sheets.

TECHNICAL DATA:

shelf life / storage:

At least 18 months for
TENACLEAN 5, 10, and 20
and at least 24 months for
TENACLEAN 60 in the original,
unopened packaging at a
cool and dry storage place
at a temperature between
+5°C and +25°C.

packaging:

1 l metal cans, supplied in cardboard boxes.
One box contains 6 cans.
Quantity on the pallet – 96 boxes (576 cans).



APPLICATION OF TENACLEAN PRODUCTS

	TENACLEAN 5	TENACLEAN 10	TENACLEAN 20	TENACLEAN 60
Function	Smoothing	Deep cleaning Surface preparation prior IGU bonding	Mild cleaning Anti-static	Mild cleaning
PVC				
White	✓*	✓*	✓	✓
Light coloured		✓*	✓	✓
Dark coloured			✓	✓
Foiled				✓
ALU				
Smooth				✓
Structured				✓
Foiled				✓

*Post-treatment with Tenaclean 20 or Tenaclean 60 is recommended

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