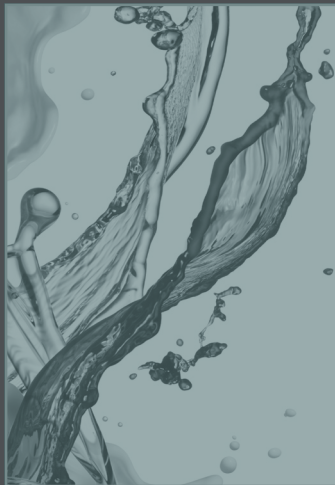


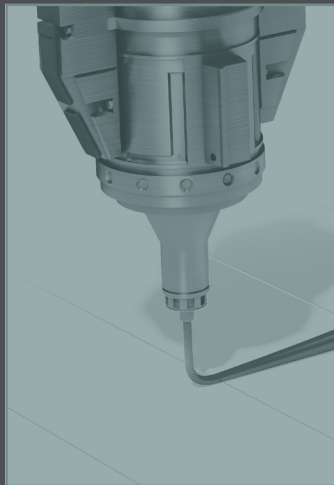
FIPFG

Formed In Place Foam Gaskets

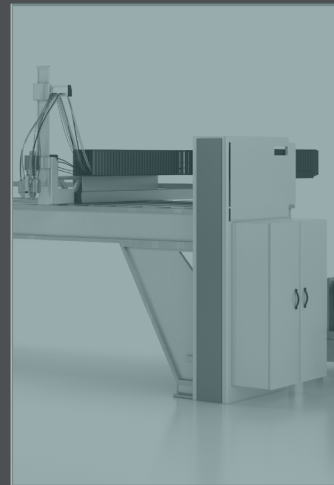
Chemistry



Contract gasketing



Machines



Maintenance & spare parts





**Close to the markets –
close to you**

About us

DAFA is a family-owned corporation founded in 1939 by Børge Norby.

We are specialists in development and production of foam, rubber and adhesive solutions such as gaskets, sealing tape and sound insulation. Our products benefit customers in construction, manufacturing and the wind turbine industry.

After establishment and acquisition of subsidiaries abroad, the DAFA Group now has more than 350 employees across three continents and eight countries,

with production in Denmark, Italy, Poland and China. DAFA's headquarters are located in Aarhus, Denmark.

Mission: DAFA offers sustainable, long-lasting solutions which seal, absorb and protect. Our goal is for our customers to experience added value by collaborating with DAFA.

Worldwide presence shapes our global footprint

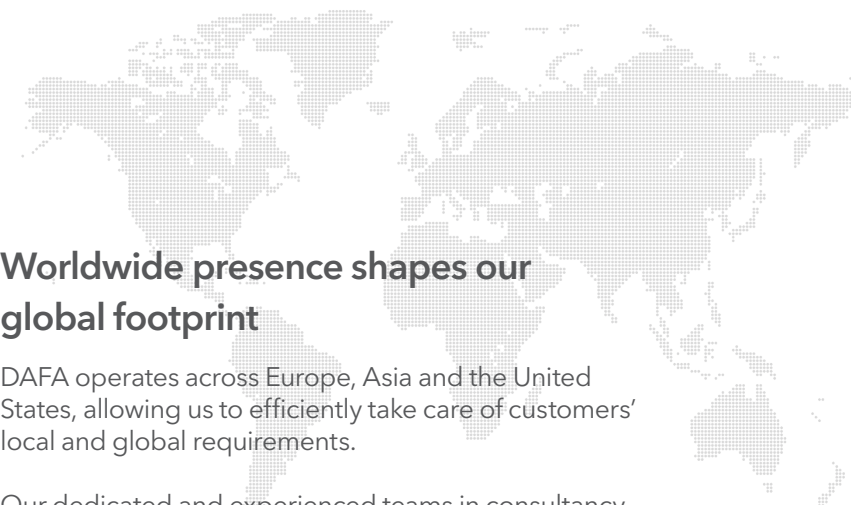
DAFA operates across Europe, Asia and the United States, allowing us to efficiently take care of customers' local and global requirements.

Our dedicated and experienced teams in consultancy, development, production, logistics and service are available to offer support across time zones. Wherever you are, we are always close to you.

Our engineers will assist you in finding the optimal solution for your application using the latest state-of-the-art technology and their specialist knowledge in the field. You can also rely on DAFA to test your application at our in-house test center, ensuring that your solution meets your particular requirements and international standards.

With high-tech production and warehouse facilities worldwide, cost-efficient processes throughout the entire supply chain are guaranteed.

Additionally, our technicians and account managers across several countries provide global agreements, ensuring that you have one point of contact in your daily interactions with DAFA.



DAFA Siglo Sealing Solutions

DAFA's business unit DAFA Siglo Sealing Solutions is focused on defining, developing and producing solutions and technologies for foaming, gluing, potting and sealing based on our extensive knowledge of chemistry, mixing and dosing technology.

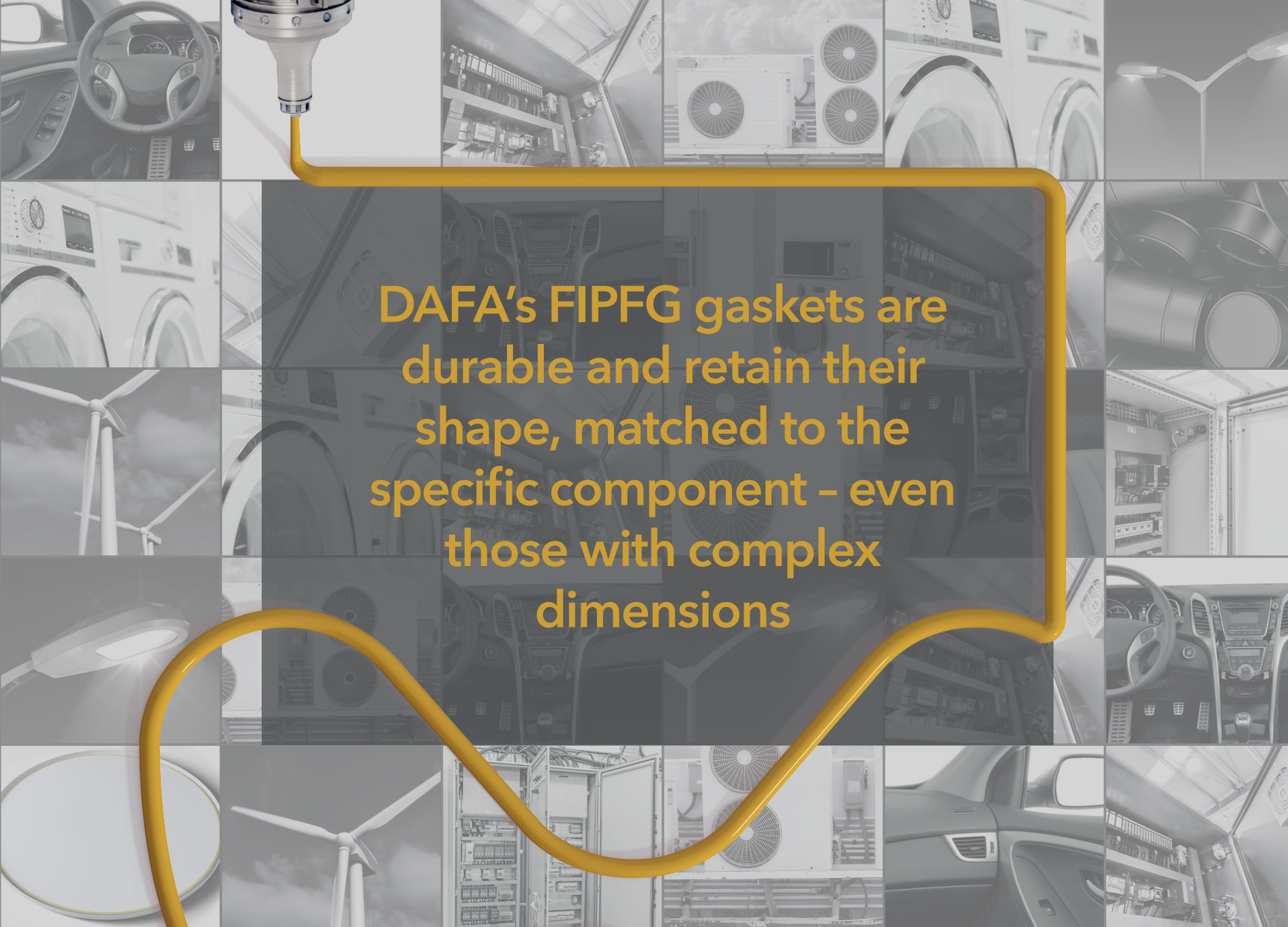
DAFA Siglo Sealing Solutions is our team of FIPFG specialists. FIPFG is the acronym for 'Formed In Place Foam Gaskets' and describes the process where 2K liquid PUR or SIL systems are precisely applied to a component and the desired gasket is formed via controlled expansion.

Our FIPFG gaskets offer solutions characterized by advanced technological precision and high repetition accuracy. DAFA's foamed gaskets are durable and retain their shape, matched to the specific component - even those with complex dimensions.

Our FIPFG technology makes it possible to produce gaskets and make them adhere to a component in a fully automatic application process, meaning no manual handling is needed.

Gaskets are applied directly to components in a one-stop cycle and with CNC-controlled precision. This method is efficient and cost-effective, and the result is a top-quality, uniform seal with an excellent finish.





DAFA's FIPFG gaskets are durable and retain their shape, matched to the specific component - even those with complex dimensions

Chemistry

SigloX is our customizable liquid compound, available in various options to satisfy the sealing requirements of all components that are in contact with external elements such as water and dust.

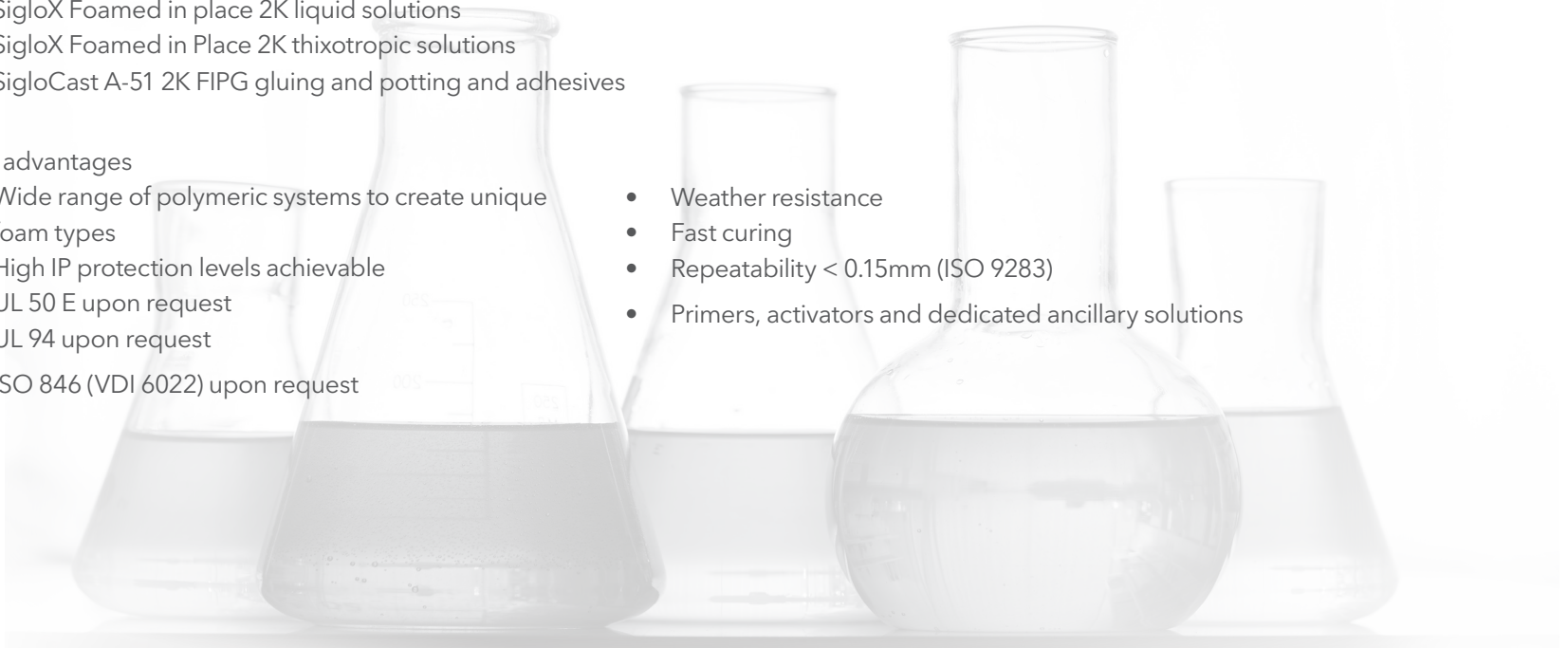
Based on perfect chemistry, SigloX makes your industrial products, lighter, tighter and waterproof to deliver reliability, process stability and superior quality. Whatever your needs, DAFA will provide the optimum tailor-made solution.

Polymeric solutions

- SigloX Foamed in place 2K liquid solutions
- SigloX Foamed in Place 2K thixotropic solutions
- SigloCast A-51 2K FIPG gluing and potting and adhesives

Your advantages

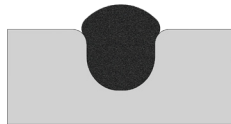
- Wide range of polymeric systems to create unique foam types
- High IP protection levels achievable
- UL 50 E upon request
- UL 94 upon request
- ISO 846 (VDI 6022) upon request
- Weather resistance
- Fast curing
- Repeatability < 0.15mm (ISO 9283)
- Primers, activators and dedicated ancillary solutions





SigloX A - 2199-2-FD
Medium/low viscosity applicable
for groove constructions.
UL listed.
For severe indoor/outdoor applications.

“SigloX to be
applied into a
groove or onto a flat
surface”



FLUID PUR and SIL SYSTEMS
To be applied into a groove

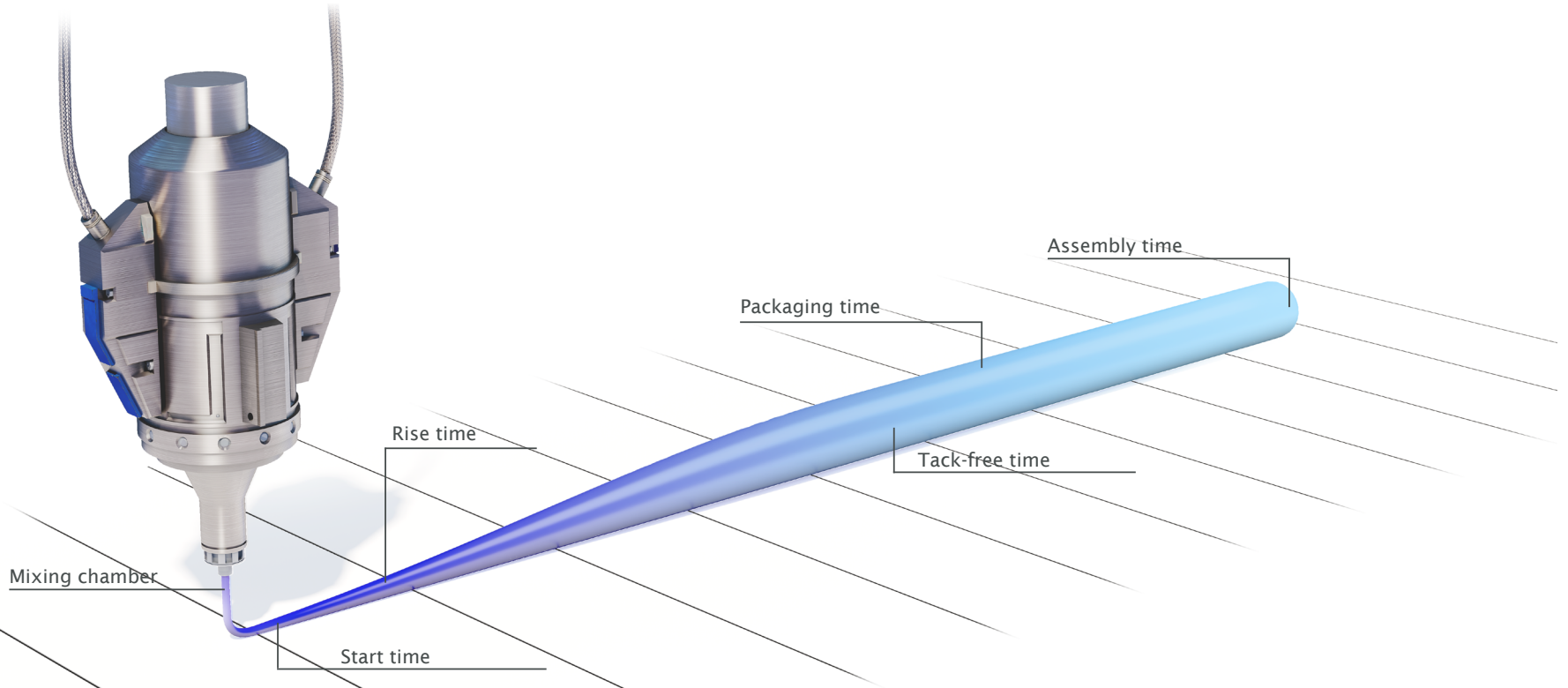


THIXOTROPIC PUR and SIL SYSTEMS
To be applied onto a flat surface



SigloX A - 4143-30-FD
Thixotropic; applicable on flat
and inclined surfaces.
UL listed.
For severe indoor/outdoor applications.

Chemistry



Mixing chamber

Rise time

Start time

Packaging time

Tack-free time

Assembly time

Mixing chamber: Where the A and B components are mixed.

Start time: The time after which the system starts to react.

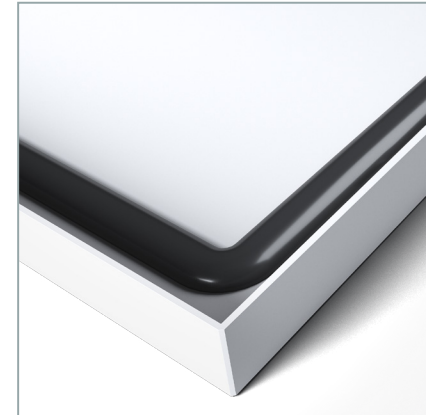
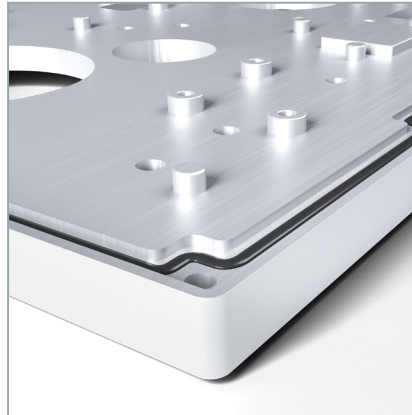
Rise time: The time for the system to expand.

Tack-free time: The time after the system is tack-free (dry surface).

Packaging time: The time where you can complete proper packaging.

Assembly time: Fully cured in 12-24 hrs. Ready to be assembled.

	Start time	Tack-free time	Packaging time	Assembly time
SigloX foams	15-60 sec.	> 3 min.	> 5 min.	> 12 hrs.
SigloX Express foams	10-30 sec.	< 3 min.	< 5 min.	< 1 hour (depending on application)



SigloX*	
Color	Black, white and gray as standard
Hardness	From 5 "Shore 00" to 40 "Shore A" possible
Compression load deflection (25% compression)	5kPa to 200kPa
Density	From 0.1g/cm ³ to 0.6g/cm ³
Temperature resistance	From - 40°C to + 100°C (short time up to + 160°C)
Tensile strength	Up to 2MPa [N/cm ²]
Elongation at break	Up to 400%
Compression set (DVR)	> 97% depending on test conditions (< 3%)
Water absorption	From < 3.5%, hydrophobic versions available
Flame retardancy	Up to UL-94 HF-1 possible

*Above is general information. The SigloX range of compounds is available in various mixtures with different properties depending on the application. Specific technical datasheets upon request. The information contained in this catalogue is not suitable for preparing technical specifications. If you need to set up technical specifications, please refer to DAFA's technical department.



Frequently asked questions

Why is SigloX the most used DAFA Siglo Sealing Solutions FIPFG technology for industrial applications?

SigloX extends the life of your products. The result of many years of research and development, this versatile two-component polyurethane foam is trusted for use in countless applications in every sector of the manufacturing industry.

Can SigloX be applied manually if we need to make samples or pre-series?

Yes. To allow manual application of SigloX, DAFA provides self-adhesive gaskets based on your requirements (the minimum order size is 100 meters). Alternatively, if you would like to have a professional application for a few samples or pre-series and up to a medium-large scale production, we can support you with contract gasketing.

Why is it convenient to use SigloX rather than other systems?

SigloX is made of the same raw material as that used in traditional PU and SIL gaskets. Traditional gaskets – which can cost up to ten times more – go through different hands before reaching your factory, but with our solutions you become the producer of the gaskets.

What is the compression set of SigloX technology?

SigloX materials used within the recommended temperature range have compression set as low as < 3%.

What is an Ecofass and how can we dispose of the empty SigloX drums?

DAFA stands for high quality and environmental awareness. SigloCast was the first DAFA product to be delivered in standard drums with in-liner and Ecofass, and SigloX products immediately followed. The Ecofass together with in-liner allows you to empty your drum completely leaving it clean after use, bringing disposal costs down to zero. The consequent saving you make per year can represent up to 5% of the total purchase price.

Can SigloX be customized to meet special product requirements?

Yes, we specialize in solving special tasks. However, this is rarely necessary as we have various standard products that will fit most needs in the industries automotive, white goods, enclosures, lighting and packaging, and many other industrial applications with UL certifications. All of these products are tested, long established in the market and competitively priced. In case none of the products in our standard range is suitable for your tasks, our chemists will create a SigloX formulation to satisfy your specific requirements.

Is it more expensive to order SigloX in our company brand color(s)?

SigloX compounds are generally supplied in black, white or gray, and these colors do not influence the price of SigloX. However, special colors require cleaning of the production equipment, which is labor intensive, hence an additional cost. This extra cost is especially marked when ordering small quantities, but less significant for bigger batches.

Can I have different shapes and heights within the same gasket?

Yes. DAFA's mixing and dosing machines can apply SigloX in different shapes and sizes, even on the same part.

Can I also use SigloX for products in small production scale?

Yes. SigloX is supplied in 1,000kg IBC containers, 200-litre drums and 25kg pails.

Does SigloX have an expiry date?

Yes. The expiry date is written on the drum and in the PDS. SigloX is a blend of several raw materials with different densities and different expiry dates.

Can SigloX be applied to inclined surfaces?

Yes. SigloX can be applied on virtually any surface, with or without a groove. With the right metering and mixing units, you can also apply SigloX on complex dimensions.

Contract gasketing

DAFA contract gasketing allows you to send components to us to apply liquid gaskets.

We will return you the parts perfectly sealed and ready for final assembly. This is a highly competitive option – we can handle low- to high-volume batches. This requires no investment on your side, while we conduct the contract gasketing.

DAFA is your reliable global partner and our FIPFG experts will give you comprehensive support, from co-designing perfect sealing solutions for your parts, producing samples, prototypes, pre-series, all the way to final production.

Your advantages

- 360-degree gasketing
- Gain flexibility without investment
- Cost-effective
- High quality
- Flexible volumes – low- to high-volume batches

Contract gasketing offers you a great deal of flexibility



.....

“The result is a top-quality, uniform seal, excellent finish and efficient production, making the method highly competitive”

.....



Automotive

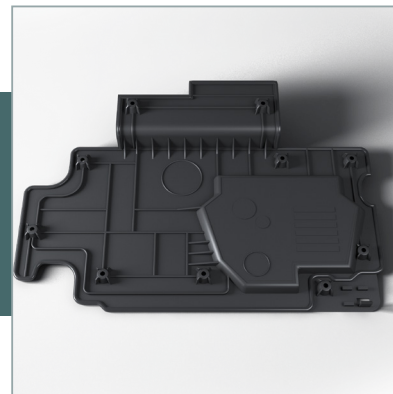
In this highly competitive, innovative and demanding sector, the largest and best-known manufacturers and subcontractors have long chosen to cooperate with DAFA.



Back light



Door handle

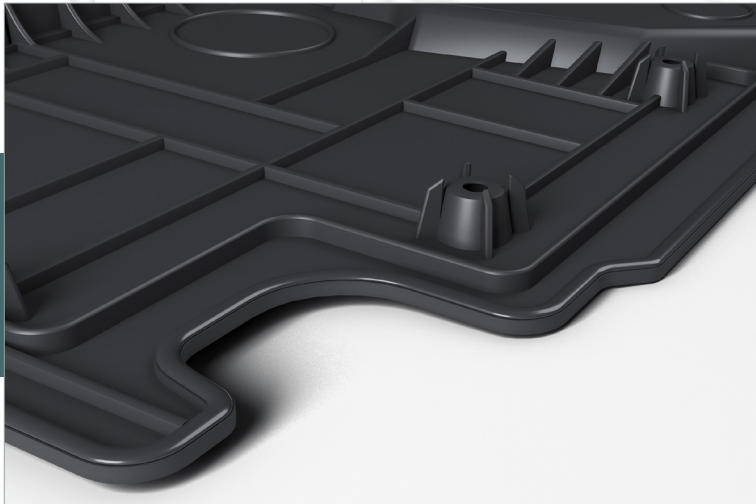


Bass box



PRV

It's the precision and high-repetition accuracy that makes the difference





White goods

DAFA meets the high requirements of the white goods industry, where it is essential that the sealants can withstand different elements, such as water and a wide range of temperatures.



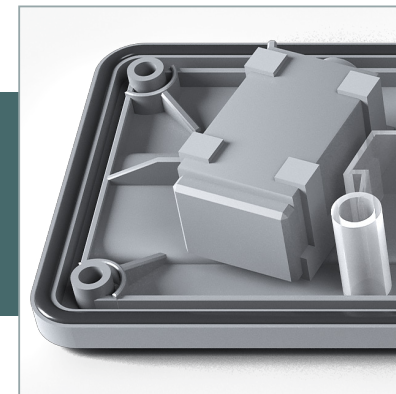
Water pump



Backplate

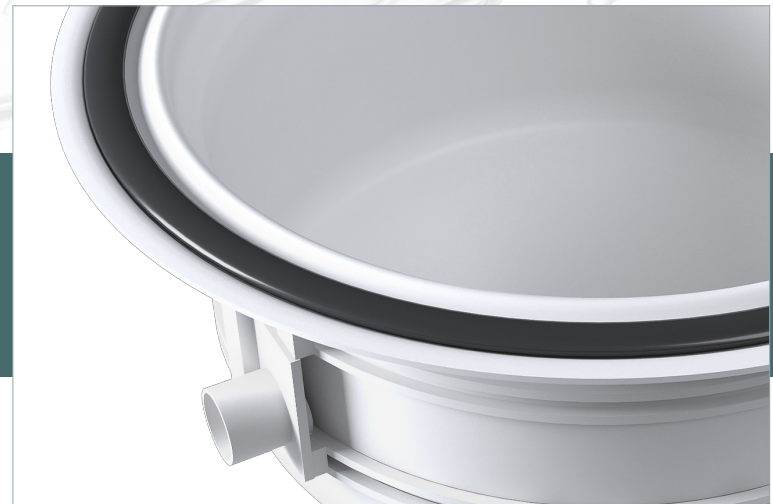
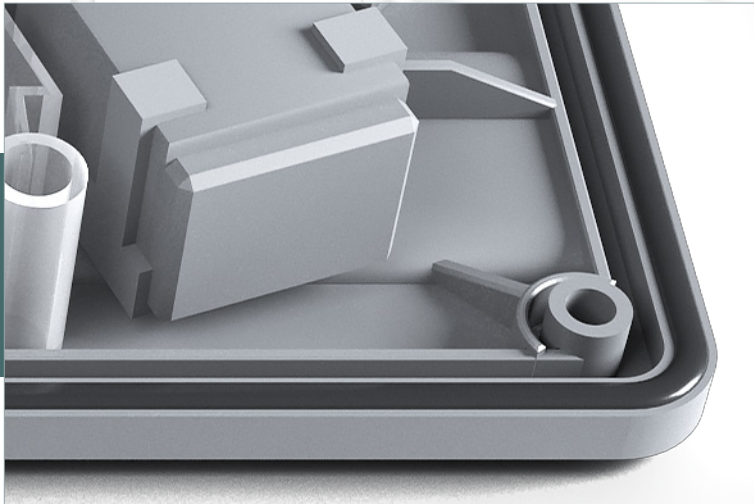


Dispenser



Dispenser

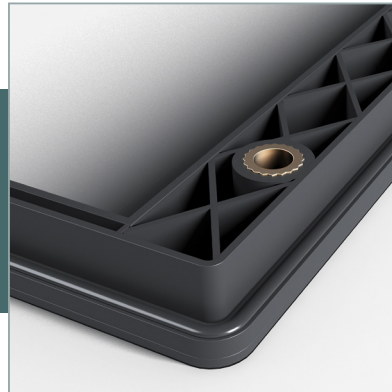
**The invisible lines that makes
wonders happen**

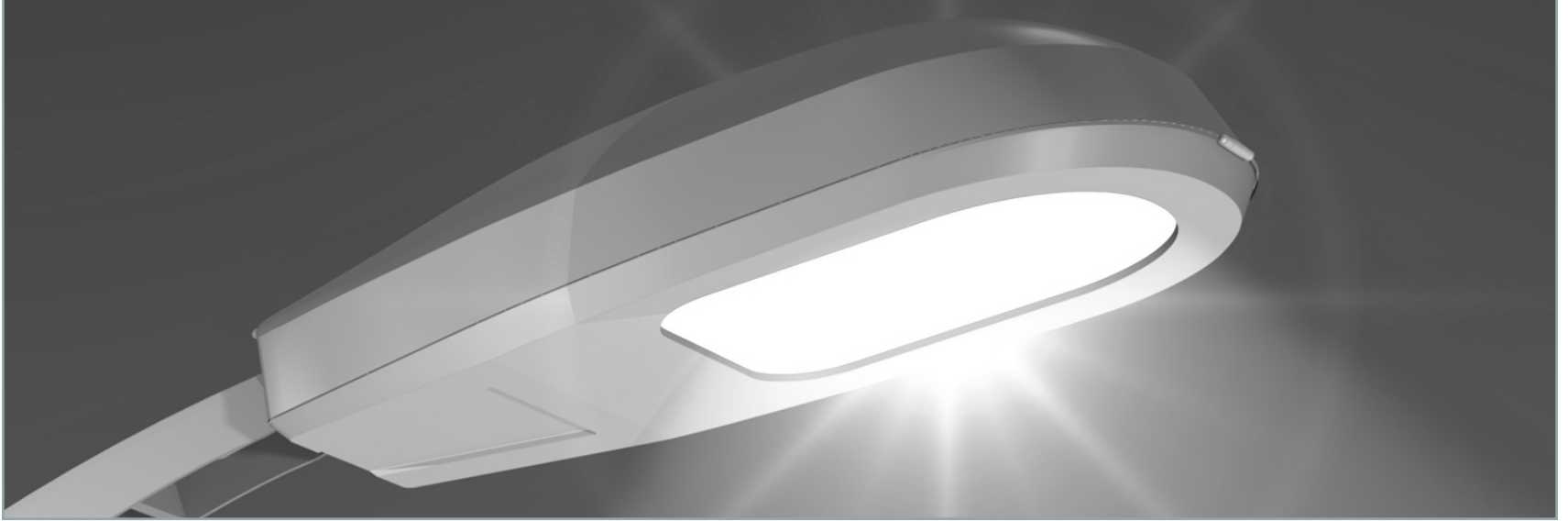




Electrical enclosures

With electrical enclosures and electrical components, it is essential to protect the electronics inside against water, dust and other objects.



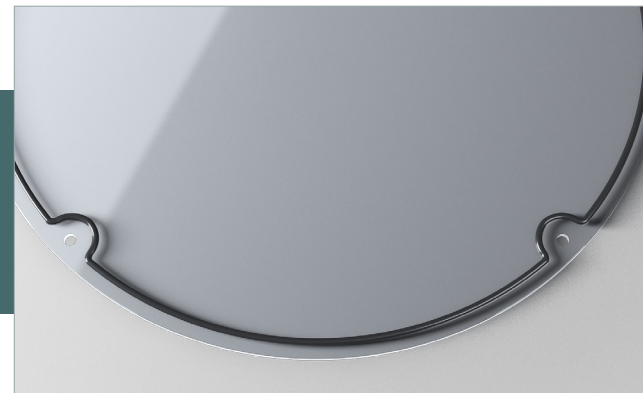


Lighting

DAFA offers various solutions for the lighting industry, whether it is lighting for buildings or streetlights that must resist extreme weather conditions.



Lighting shell



Lighting glass



Other industries

Whatever company or industry you represent, DAFA is always ready to listen to the sealing challenge you are facing.



HVAC



Packaging



Electronics



Machinery

Frequently asked questions

What support would we get if at some point we decide to buy our own machine from DAFA?

Contract gasketing offers you a great deal of flexibility – therefore, whenever contract gasketing does not fit your needs any longer you can switch to production on your own DAFA machine. DAFA will support you all the way from selling you a machine to aftersales and specific production training.

Is DAFA's contract gasketing expensive?

By leaving contract gasketing in the hands of DAFA's experts, you don't need to invest in any machinery or internal manpower. Given that the logistics are properly organized, there is no easier and cheaper way to have SigloX gaskets applied to your components.

How will process and production parameters, pre-treatments, tolerances etc. be defined?

DAFA will assist you from start to finish. Prior to production our FIPFG experts will analyze all technical aspects in close collaboration with you and, immediately after the trials, we will make sure that the selected technology exactly fits your requirements.

What about transportation costs, packaging and logistics?

Transportation of components from the customer to DAFA will incur a cost. After contract gasketing, DAFA will handle and pack your parts carefully – to the high standards outlined in a signed formal agreement – before sending them back to you.

Is there a size limit for parts produced in contract gasketing?

The only size limit is given by the machine size, which is often 3,000 x 1,250 x 300mm. For parts exceeding 1,500 x 1,200 x 300mm, especially when powder-coated or in stainless steel, we recommend the use of one of our many DAFA adhesive solutions.

Machines

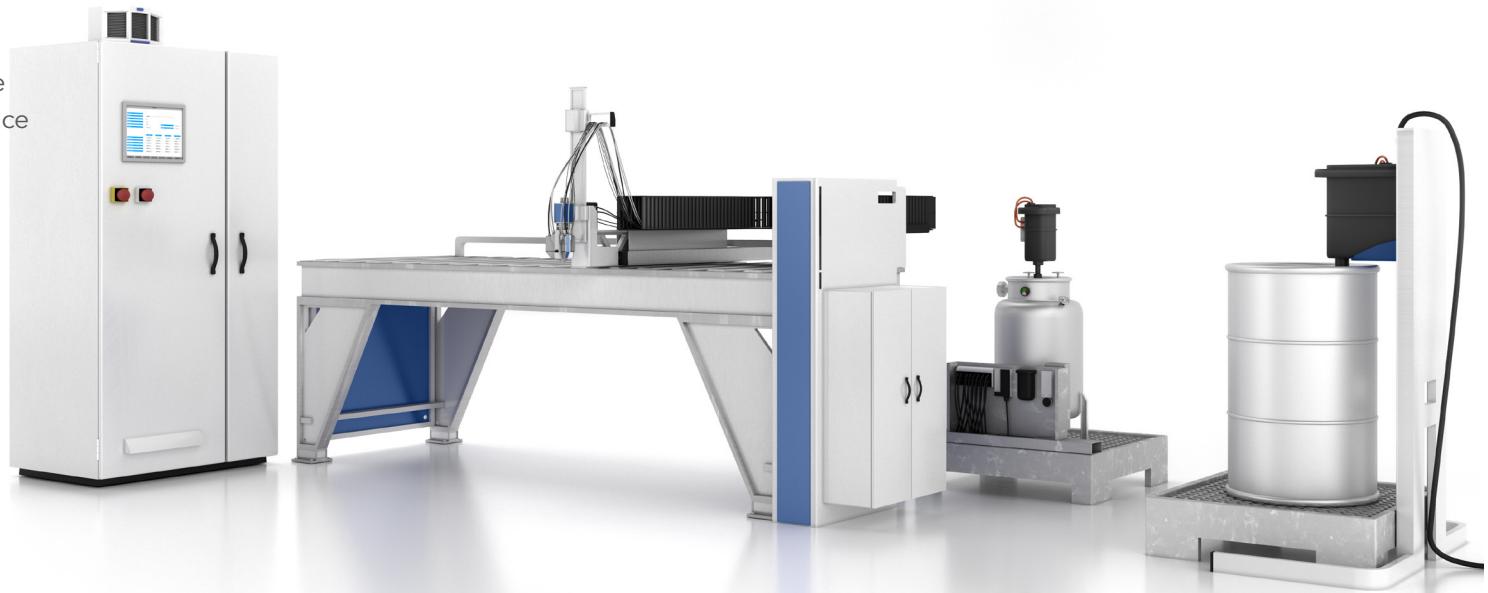
DAFA 2K-3K mixing and dosing units are the most flexible units for sealing, gluing and potting your components, virtually without limitations.

All systems are built with the most advanced components, resulting in optimum productivity, efficiency and reliability, combined with ease of operation.

DAFA analyzes the specific needs of your industry, always developing the best solution for boosting performance of your components.

Your advantages

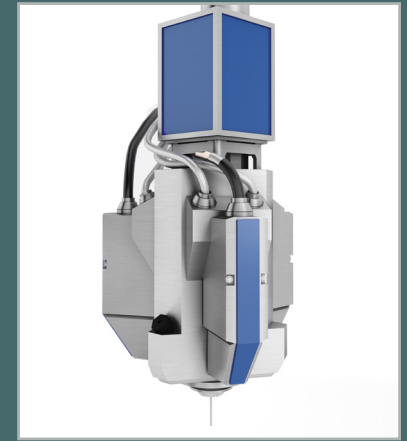
- High productivity
- High efficiency
- High reliability
- Easy to operate
- Low maintenance



Linear CNC mixing and dosing unit with refilling station.
Standard sizes from 800 x 800 x 190mm and up to 3,000 x 1250 x 380mm. Special sizes on request.



Low pressure 2 component dispensing cell with integrated 15" TFT display is especially designed for smaller parts.

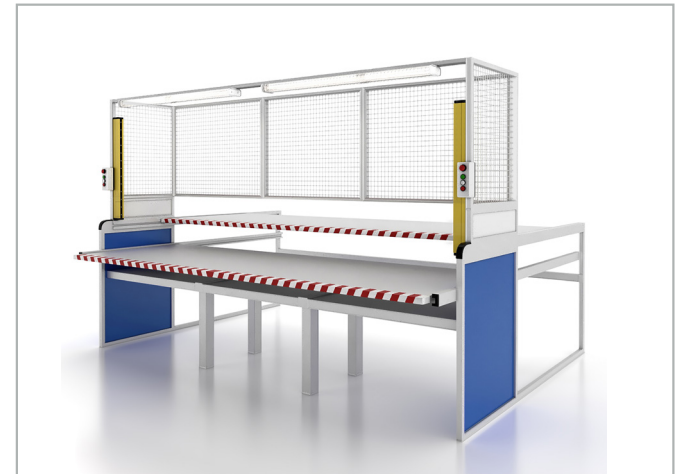


DAFA offers a various range of static and dynamic mixing heads for perfect applications of 1K-2K PUR and SIL systems.

Automations and shuttle tables in standard sizes ranging from 400 x 400mm. up to 2,500 x 1,200mm.



One-level shuttle table



Two-level shuttle table



Teaching box operator panel to allow easy programming of the machine.



Refilling station (available for all machines) helps to ensure that materials are always handled in the proper way, at the right level of temperature and nucleation.



Frequently asked questions

Is using a mixing and dosing unit from DAFA a cost-effective option?

Yes, it is a very economical way to professionally seal and glue your components. Cutting-edge mechanical, robotic, pneumatic and hydraulic technology, all driven by complex software, combined to make the unit user-friendly and to deliver exceptionally high productivity.

How long does it take to get a machine with all the features we need?

It depends on your requirements. Tailor-made machines normally take longer to deliver than standard machines.

What skills do I need to operate a machine bought from DAFA?

Operators can be trained by our technicians. We offer training programs at your site using your materials and components to fast-track learning. New operators normally attain a very good skill level after 1-2 weeks of the beginners' course.

How precise is the 2K metering and mixing machine?

It is equipped with the most sophisticated metering and pumping system available. Consequently, the dosing accuracy of our machines exceeds 99%.

We have special handling requirements. How many solutions can you offer?

We have designed and developed countless different solutions for our clients. However each production site has different working conditions, layouts and specific requirements – such as handling, pick-and-place, pretreatment units and curing stations – that require special solutions.

Can I use more than one formula with the 2K machines?

You can use whatever formulation best suits your products. As long as they have the same chemical base and same viscosity you can swap material at any time. Our experts will give you professional guidance on how to do this safely. Additionally, our 3K machines allow you to have at least two different solutions always ready to use.

Does DAFA supply external automations?

External automation is one of the most challenging parts of the process. This is why we can supply you with a fully integrated automation, or we can work together with your local and trusted supplier, with whom we can have an open dialogue from the beginning.

Technological trust, fast delivery of spare parts, and maximum flexibility is what you need from your automations supplier. Furthermore, automations often need upgrades and small changes during their life cycle. Most machines have a very open interface that successfully speak to external automations.

Can DAFA offer a machine to match our specific requirements?

As pioneers in the gasket industry, DAFA offers ready-made, standard machines suitable for most industrial applications such as lighting, car parts, electrical enclosures, filters, white goods, packaging, plastic and metal body parts, HVAC and industrial components. However, we also have the flexibility to adapt to your needs and design the perfect solution for your particular components.

Can I upgrade the automation of my machine as my requirements grow?

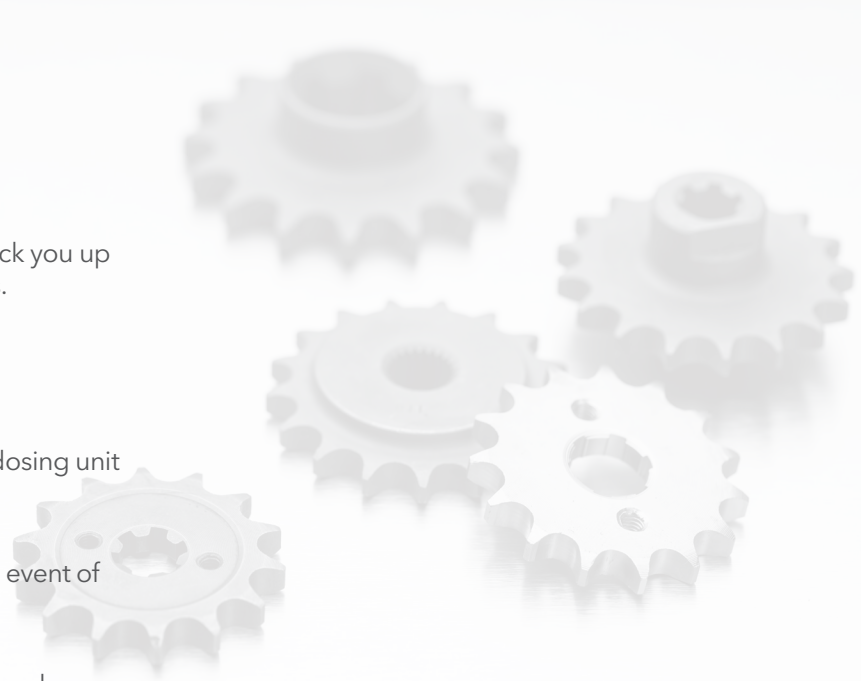
Yes, automations can be upgraded at any time. DAFA offers machines designed to be adaptable to your requirements.

Maintenance & spare parts

DAFA's experienced technical department is prepared to back you up in all after-sales services, ensuring fast and efficient solutions.

We offer a wide range of services, including:

- Commissioning of the FIP(F)G system
- Technical training and maintenance of your mixing and dosing unit
- Education on chemical materials
- Production support
- Scheduled maintenance as well as express service in the event of unscheduled machine downtime
- Express ex-stock spare parts delivery
- Internal and on-site repair of machine mechanical parts, such as pumps, valves, mixing heads, CNC linear robots, etc.



Frequently asked questions

Do you offer service on a machine not bought from DAFA?

Yes. Our technicians have experience of many different technologies and can provide service and maintenance on 1K-2K-3K systems. We do not provide service on critical parts such as machine software, but we can offer all hardware parts that are available on the market.

Do you offer spare parts for machines not bought from DAFA?

We maintain close links with reliable suppliers that produce original and after-market spare parts for several brands.

Is it possible to retrofit our old machine?

Yes. It is often too expensive or too difficult to maintain a mixing and dosing unit, in which case we can retrofit it for you. At a fraction of the price of buying a new machine, we will refresh all the mechanical parts and update all the electric and electronic parts of your existing one.



The invisible lines that make wonders happen

At DAFA we are experts in specialized products and total solutions that seal, absorb and protect.

With constant innovation, uncompromising product quality and close collaboration with our partners, we contribute to successful projects in industries where attention to detail is the difference between success and failure.

Our experience covers three quarters of a century with a strong commitment to principles of sustainability in business decisions that create long-term value for our stakeholders.

Our global supply chain means we deliver to any location efficiently on competitive conditions.



* Applies to: DAFA A/S, DAFA Sverige AB, DAFA Deutschland GmbH, DAFA Sealing Technology (Tianjin) Co., Ltd., DAFA US Inc., DAFA Polska sp. z o.o.

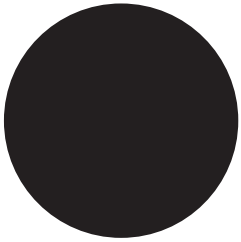
** Applies to: DAFA A/S



dafa-group.com

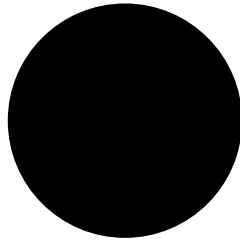
Denmark · Sweden · Germany · China · US · Norway · Poland · Italy





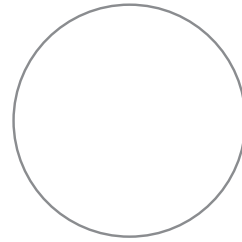
SigloX A 4125-2-FD
30°±5° Shore 00

Thixotropic; ultra-soft, UL listed.
Excellent mechanical properties and excellent
adhesion on powder coatings.



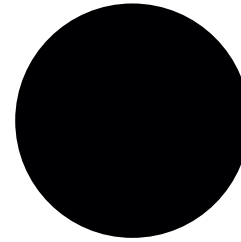
SigloX A 5133-2-FD
60°±5° Shore 00

High viscosity thixotropic system;
hydrophobic cellular structure.
Suitable for outdoor applications and ideal
for heavyduty applications.



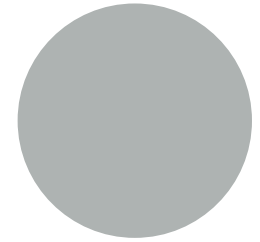
SigloX A 2122-1-FD
18°±5° Shore 00

Low-viscosity , high-solid content formulation
with very high chemical resistance.
Specially formulated for the metal and
plastic packaging industry.



SigloX A 2020
40°±5° Shore 00

Low-viscosity, high-performance system
developed for groove constructions.
Specially formulated for the lighting and
electrical industry.

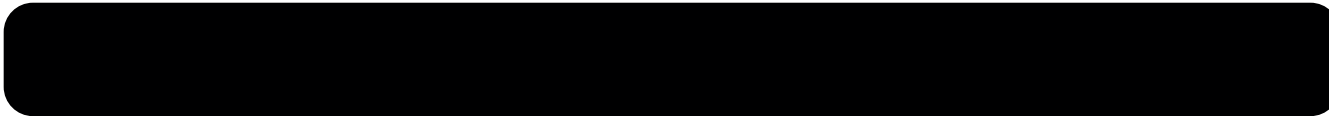


SigloCast A 51-DM
Ca. 40°±5° Shore D

Multipurpose casting resin.
Specially developed for gluing glass
onto powdercoated and stainless steel
electrical cabinet doors.



SigloX
From 2.5mm gasket



SigloX
Up to 15mm gasket

SigloX is available in any RAL color. Supplied in black, white or gray as standard.

