



SEALANT

Product Guide



DANA LIM A/S
Københavnsvej 220
DK-4600 Køge

Technical Service: +45 5664 0075
Phone: +45 5664 0070
Fax: +45 5664 0090

www.danalim.dk



ACRYLIC SEALANTS

Product	Brief Description	Curing system	Contains fungicide	Paintable	Shrinkage	Hardness (Shore A)	Elasticity	Temp. resistance Min. °C / Max. °C	Tooling time (minutes) (at 20 °C and 50% relative humidity)
MS Building Sealant 522	Suitable for all kinds of building - indoor as well as outdoor. Particularly suitable for combined joints (i.e. different materials) and for facade elements and vertical expansion joints.	Neutral MS-hy- bride polymer	No	Yes	-	26	±25 %	-40 °C to +90 °C	5 - 15
Combi Flex 524	Cures by reaction with the humidity of the air to an elastic joint. Is absolute odourless, neutral and fast curing. Can be painted and has a remarkable resistance to climatic influence. Does not contain solvents, silicone or isocyanat.	Neutral MS-hy- bride polymer	No	Yes	-	42	±20 %	-40 °C to +90 °C	5 - 30
Tile Adhesive 525	Specially developed for adhesion of tiles. The adhesive cures by reaction with the humidity of the air to a strong and flexible joint even on most surfaces.	Neutral MS-hy- bride polymer	No	Yes	-	55	±20 %	-40 °C to +90 °C	5 - 10
Flooring Sealant 553	MS -polymer sealant developed especially for sealing of wooden floors, and for sealing between floor and walls, stairs, pillars etc. The sealant can be sanded and lacquered.	Neutral MS-hy- bride polymer	No	Yes	-	30	±25 %	-40 °C to +90 °C	5 - 15



SILICONE SEALANTS

Product	Brief Description	Curing system	Contains fungicide	Paintable	Shrinkage	Hardness (Shore A)	Elasticity	Temp. resistance Min. °C / Max. °C	Tooling time (minutes) (at 20 °C and 50% relative humidity)
Universal Silicone 510	Suitable for glazing and damp areas like bathrooms, sanitary installations etc. Also suitable for industrial sealing.	Low oxime	Yes	No	-	20	±25 %	-40 °C to +120 °C	5 - 15
Silicone A 571	For almost all do-it-yourself purposes, indoor as well as outdoor. Frequently used for sealing in connection with windows, bathrooms, kitchens, plumbing, caravans, boats, showers etc.	Acetoxy	No	No	-	20	±25 %	-30 °C to +120 °C	0 - 5
Sanitary & Building Silicone 577	Contains a fungicide which reduces the risk of mildew growth, and it has first-rate resistance to detergents and common household-chemicals. Is particularly suitable for sanitary spaces and other damp areas like bathrooms or shower-cubicles.	Alcoxy	Yes	No	-	18	±25 %	-50 °C to +150 °C	5 - 15
Aquarium Silicone 579	Developed for the assembling of aquariums and terrariums. Also suitable for other glass bondings, where optimum strength is required. The sealant re-sists UV-light, temperature variations, fresh water and sea water.	Acetoxy	No	No	-	24	±25 %	-50 °C to +200 °C	5



MS-POLYMER SEALANTS

Product	Brief Description	Curing system	Contains fungicide	Paintable	Shrinkage	Hardness (Shore A)	Elasticity	Temp. resistance Min. °C / Max. °C	Tooling time (minutes) (at 20 °C and 50% relative humidity)
Acrylic Sealant 557	Can be painted after curing. Is used for sealing around doors and windows, and for filling cracks, board joints, tube passages etc. The sealant is also suitable for acoustic joints, glass, anodised aluminium, treated wood, concrete, bricks and ceramic.	Water based	No	Yes	15 %	-	-	25 °C to +80 °C	5 - 10
Painters Caulk 558	For smaller joints and cracks. For sanding and gives a perfect surface for a paint finish. For panels, frames, joints etc.	Water based	No	Yes	10 %	-	-	-25 °C to +80 °C	5



SPECIAL SEALANTS

Product	Brief Description	Curing system	Contains fungicide	Paintable	Shrinkage	Hardness (Shore A)	Elasticity	Temp. resistance Min. °C / Max. °C	Tooling time (minutes) (at 20 °C and 50% relative humidity)
Sealant 543	Recommended for jointing edges of new roofing felt, for cold jointing of roofing felt and flashings against chimneys, ventilation pipe, and roof windows and for damage repairing of roofing felt.	Oil based	No	No	-	-	±10 %	-25 °C to +80 °C	60 min
DA Mastic 551	Suitable for sealing around doors and windows and between building elements, where serious mechanical influences do not occur. Is not resistant to constant influence by water and has a limited resistance to UV-light and high temperatures.	Oil-based	No	Yes	2 %	-	±10 %	-40 °C to +100 °C	15 - 30
Tagfugemasse 559	Suitable for sealing between roofing tiles and for traditional sealing purposes e.g. around windows and doors in facades. Particularly suitable for sealing and reparings of e.g. roofing felt, tile and eternite roofs and for tile pointing and sealing around chimneys, ventilation channels, pipe assemblings etc.	SBR-baseret	Yes	Yes	15 %	25	±15 %	-25 °C to +80 °C	5 min
Silicone Remover 911	Removes cured and uncured silicone sealant on most materials and leaves completely silicone free surfaces. The Silicone Remover is also suitable for removing small areas with mould fungus on silicone sealant.								

Tips

Please check our website at www.danalim.dk
How to do it!

- Setting up mirrors
- Glass blocks
- Setting up Rockfon acoustic panels
- Maintenance of putty windows
- Maintenance of joints in wet rooms
- Cleaning and maintenance of NBS-gun
- Adhesion the winter
- Levelling and Finishing
- Sealing and bonding of natural stone and joints in bath



Application

- Very suitable
- Useable
- Not recommended

MS Byggefuge 522 **Combi Flex 524** **Tile Adhesive 525** **Flooring Sealant 553**
Universal Silicone 510 **Silikone A 571** **Sanitary & Building Silicone 577** **Akvariesilicone 579**

		MS Byggefuge 522	Combi Flex 524	Tile Adhesive 525	Flooring Sealant 553	Universal Silicone 510	Silikone A 571	Sanitary & Building Silicone 577	Akvariesilicone 579
Indoor	Cracks and crevices	●	●		○	○	○	○	
	Doors and windows	●	○		○	●	●	●	
	Pipe passages	●	●	●	○	●	●	●	
	Frames	●	○		○	○	○	○	
	Element joints	●	○		○	●		●	
	Ventilation channels	●	●	●	○	●	●	●	
	Sink in worktops	●	●		○	●	●	●	
	Flooring joints		●		●				
	Sanitary installations (showers etc.)					●	○	●	
	Corner joints in tile wall	○	○		○	●	○	●	
	Tile pointing of roofs								
	Sealing (hidden joint)	●	●	○	○	●	●	●	
	Board joints (light partitions)	●	●		○	○	○	○	
	Sealing/filling of gypsum boards		●	●					
Outdoor	Bonding of skirtings etc.	●	○			●		●	
	Element joints (expansion joints)	●	○		○	●		●	
	Doors and windows	●	○			●	○	●	
	Topsealing (windows)	●	●	○	○	●	●	●	
	Pipe passages	●	●	○	○	●	●	●	
	Ventilation channels	●	●	○	○				
	Cracks and crevices	●				●	●	●	●
	Greenhouses		●			●	○	●	●
	Boat / Marine	●		●		○		○	
	Roof joints			●		○		○	
	Tile - adhesion			●					
	Humid surfaces (non absorbant)								
Various	Aquarium							●	
	Mounting of mirrors	○	●						
	Body work		●						
	Container assembling		●						
	Cold rooms	●	●						
	Contact with food - indirectly	●	●						

Ovenstående vedhæftningstabell skal betragtes som retningsgivende. Da der i praksis kan forekomme store variationer i de enkelte materialer, bør der altid udføres tilstrækkelige vedhæftningsforsøg for igangsættelse af - især store - opgaver.

Advice

Maintain Sanitary Joints

For joints in damp areas like bathrooms or shower-cubicles and other sanitary spaces where extra high demands for resistance against risk of mildew growth, always use a sealant which contains a fungicide as Sanitary Silicone 512.

Good Advice

To obtain the longest possible lifetime of the sanitary joints the following requirements must be met:

- The joint must be dimensioned and constructed according to existing regulations – if possible not horizontal
- The joint is wipe off for water and residue of soap
- The joints is frequently cleaned
- Ensure good ventilation in the room



Application

Acrylic Sealant 557
 Painters Finish 558
 Roofing Sealant 543
 DA Mastic 551
 Superseal 559

Application

- Very suitable
- Useable
- Not recommended

Acrylic Sealant 557	Painters Finish 558	Roofing Sealant 543	DA Mastic 551	Superseal 559		
●	●			○	Cracks and crevices	Indoor
●	●		○	○	Doors and windows	
●	●		●	○	Pipe passages	
●	●			○	Frames	
○				○	Element joints	
●	●		●	○	Ventilation channels	
				○	Sink in worktops	
					Flooring joints	
					Sanitary installations (showers etc.)	
				○	Corner joints in tile wall	
		●			Tile pointing of roofs	
●	●	●	●	○	Sealing (hidden joint)	
●	●				Board joints (light partitions)	
					Sealing/filling of gypsum boards	
					Bonding of skirtings etc.	
			○	○	Element joints (expansion joints)	
					Doors and windows	
			●	●	Topsealing (windows)	
			●	●	Pipe passages	
				○	Ventilation channels	
					Cracks and crevices	
					Greenhouses	
		●	●	●	Boat / Marine	
					Roof joints	
					Tile - adhesion	
					Humid surfaces (non absorbant)	Various
					Aquarium	
					Mounting of mirrors	
					Body work	
					Container assembling	
					Cold rooms	
					Contact with food - indirectly	


Advice

Tooling Liquid 901

Tooling Liquid 901 is especially developed for tooling of sealants based on silicone, polyurethane and MS-polymer.

Tooling Liquid 901 reduces the risk of adhesion failure and also reduces the tendency of sealant sticking to the tool / joint nail. Suitable for both wet and dry tools.

Tooling Liquid 901 gives the possibility for after-filing the joint with fresh sealant that a normal soap dilution may prevent as the surface tension is reduced given the soap which makes it impossible for sealants to glue.



Product Guide

Application

- Very suitable
- Useable
- Not recommended

MS Building Sealant 522
Combi Flex 524
Tile Adhesive 525
Roofing Adhesive 543
Universal Silicone 510
Silicone A 571
Sanitary & Building Silicone 577
Aquarium Sealant 579

		MS Building Sealant 522	Combi Flex 524	Tile Adhesive 525	Roofing Adhesive 543	Universal Silicone 510	Silicone A 571	Sanitary & Building Silicone 577	Aquarium Sealant 579
GLASS ETC.	Glass, clear	●	●	●	●	●	●	●	●
	Glass, stained	●	●	●	●	●	●	●	●
	Enamel (china)	●	●	●	●	●	●	●	●
METALS	Aluminium, milled	●	●	●	●	●	●	●	●
	Aluminium, anodised	●	●	●	●	●	●	○	
	Steel	Primer 960	●	●	●	○		○	
	Steel, galvanised	Primer 960	●	●	●	●		●	
	Steel, stainless	Primer 960	●	●	●	●		●	
	Copper	●	●	●	●				
	Lead	●	●	●	○	○		○	
	Zinc	●	●	●	●	●		●	
PAINTED SURFACES	Acrylic	●	●	●	●	●	●	●	
	Epoxy	●	●	●	●	●	●	●	●
	Alkyd	○	○	○	●	●	●	●	●
	Polyester	●	●	●	●	●	○	●	
	Polyurethane	●	●	●	●	●	●	●	●
RIGID PLASTIC	PVC	●	●	●	●	●		●	
	Acrylic (PMMA, plexiglass)	Primer 960	○	●	●		●	●	●
	Polyester (Fibre glass (GAP))	●	●	●	●	●	●	●	●
	Phenolic	●	●	●	●	●	●	●	●
	Polyurethane	Primer 960	Primer 960	Primer 960	○	○		○	
	Polycarbonate	Primer 960	○	●	●		○	●	
POROUS SURFACES	Concrete	Primer 961	Primer 961	●	●	●		●	
	Concrete, low density	Primer 961	Primer 961	●	●	●		●	
	Brick	Primer 961	Primer 961	●	●	●		●	
	Granite/Marble	Primer 961	Primer 961	Primer 961	○	●			
	Stone	Primer 961	Primer 961	Primer 961	●	○		○	
	Gypsum board	Primer 961	Primer 961	●		●		●	
	Tile	Primer 961	Primer 961	Primer 961	●	●		●	
	Tile - concrete	Primer 961	Primer 961	●	●	●		●	
	Tile - slate	Primer 961	Primer 961	●	●	●		●	
	Wood (Pine, beech, oak etc.)	Primer 961	Primer 961	Primer 961	●	●		●	
	Wood (teak etc.)	Primer 962	Primer 962	Primer 962	●	●		●	
	Chipboard	Primer 961	Primer 961	●	●	○		○	

The above adhesion table must be regarded as normative. In practice, large variations may occur in the different materials. Always carry out sufficient bonding before starting tasks - particularly large ones.

Advice

Wipes 915 / 916 / 917

Wipes is specially developed for removal of non-cured sealant of all types, from all types of surfaces, can also be used for oil, grease, dirt etc. Wipes can be used for degreasing prior to sealing or adhesion.

Wipes is a strong paper napkin, which has been applied an effective hand cleaning system, so the product is suitable for cleaning hands.

Wipes can be used on most surfaces like metals, painted surfaces, plastic etc. Always make a test on the surface first. The product is supplied in a specially design container that prevents the wipes from drying out.



Materials

	Acrylic Sealant 557	Painters Finish 558	Flooring Sealant 553	DA Mastic 551	Superseal 559		
			●	●	●	Glass, clear	GLASS ETC.
			●	●	●	Glass, stained	
	○	○	●	●	●	Enamel (china)	METALS
	○	○	●	●	●	Aluminium, milled	
	●	●	●	●	●	Aluminium, anodised	
	○	○	Primer 960	●	●	Steel	
	○	○	Primer 960	●	●	Steel, galvanised	
	○	○	Primer 960	●	●	Steel, stainless	
	○	○	●	●	●	Copper	
	○	○	●	●	●	Lead	
	○	○	●	●	●	Zinc	
	●	●	●	●	●	Acrylic	
	●	●	●	●	●	Epoxy	
	●	●	○	●	●	Alkyd	
	●	●	●	●	●	Polyester	
	●	●	●	●	●	Polyurethane	
	●	●	●	●	○	PVC	RIGID PLASTIC
	○	○	●	●	○	Acrylic (PMMA, plexiglass)	
	○	○	●	●		Polyester (Fibre glass (GAP))	
	○	○	●	●		Phenolic	
	○	○	Primer 960	●		Polyurethane	
	●	●	●	●	○	Polycarbonate	
	●	●	Primer 961	●	●	Concrete	POROUS SURFACES
	●	●	Primer 961		●	Concrete, low density	
	●	●	Primer 961	●	●	Brick	
			Primer 961			Granite/Marble	
	○	○	Primer 961	●	●	Stone	
	●	●	Primer 961	●	●	Gypsum board	
	○	○	Primer 961	●	●	Tile	
	○	○	Primer 961	●	●	Tile - concrete	
	○	○	Primer 961	●	●	Tile - slate	
	●	●	Primer 961	●	●	Wood (Pine, beech, oak etc.)	
	●	●	Primer 962	●	●	Wood (teak etc.)	
	●	●	Primer 961	●	●	Chipboard	

Advice

Application of Primer

Primer 960 is an adhesion promoter, especially developed to improve adhesion of MS-polymer, PU and Silicone based sealants to porous substrates on most non-absorbing surfaces as glass, metals and most types of plastic.

Primer 961 is an adhesion promoter, especially developed to improve adhesion of MS-polymer, PU and Silicone based sealants to porous substrates and to metals like copper and brass.

Primer 962 is an adhesion promoter, especially developed to improve adhesion of MS-polymer and PU based sealants to porous substrates and to oil containing wood (like teak).



SEALING PROCEDURE

A good result of sealing does not only depend on a well thought out preparation and choice of sealant. The sealing procedure itself must be carried out carefully - according to the guidelines on this page.

Preparation of the surfaces:

The sides of the joint - the bonding surfaces - must always be clean and free from dust, loose particles, snow, white frost etc. For most sealants it is also essential that the surfaces are completely dry. If the surfaces need to be dried, this can be done with a fan heater.

Covering with tape:

Before application of primer or sealant, it is often an advantage to use covering tape. This gives the best result and lightens the subsequent work and cleaning considerably.

Priming the surfaces:

It is very often necessary to use a primer on the surfaces. This is done in order to improve the bonding of the sealant on special materials, avoid influence from humidity from the materials and to prevent plasticiser migration, which in time can result in

adhesion failure. The choice of primer depends on materials and the chosen sealant.

Always use the primer recommended by the sealant supplier. Application of the sealant after priming should not be carried out before the indicated time. On the other hand the time between priming and sealing should not be too long, as the risk of defaturation of the surface increases. Primer is applied with a brush. Please note, that most primers contain organic solvents and must be handled with care.

Placing of backer rod:

The backer rod must give a good support for sealing and must be placed so it is fixed in its entire length. Usually a dimension 10-25% larger than the joint is chosen. The backer rod is placed at the correct depth with a soft instrument, e.g. the round side of the tooling knife.

It is very important that the backer rod is not damaged during the placing. If there is not enough room for backer rod, use slip tape in the bottom of the joint.

Backer rod:

In order to obtain a fully functional joint, it should only bond on the two sides. If it bonds to the bottom of the joint (3-point bonding) the movements are unequally dispersed in the sealant and its life time can be drastically reduced. In joints, where elastic sealants are used, it is recommended to use round backer rod, whereas quadrilateral backer rod is recommended for plastic sealants.

Preparation of the sealant:

The chosen sealant is prepared as stated by the supplier. The sealing tip is cut with a diagonal cut, which is a little smaller than the width of the joint.

For most sealants application temperatures are stated, often minimum 5°C. In some cases it is possible to seal in frosty weather, but the curing time is considerable prolonged. At very low temperatures the sealant is easier to apply, if it has been stored in a warm place (15-20°C) immediately before application.

Application of sealant:

The cartridge or the sausage is placed in the sealing gun and the sealant is applied in an even, steady movement in the joint. It is important that the sealant is pressed in place, in order to obtain optimum bonding. Frequently the front of the sealant is placed 2-3 mm behind the front of the joint in order to avoid defilement of the edges. When sealing very wide joints, the best result is obtained, if the sealant is applied in 3 steps - first in a triangle in each of the

two corners, then the finishing triangle, which fills the rest of the joint.

Post treatment:

The sealant is pressed in place and carefully finished with a sealing stick within the treatment time stated for the sealant in question. As finishing agent a soap dilution is used - some recommend pure water, but that is more difficult! Tooling liquid 901 is preferred and gives you the possibility to refill the joint. In vertical joints the finishing should be done from the bottom and up, in order to keep the tooling liquid from running down the sides of the joint and increase the risk of release. If covering tape is used, this must be removed before the sealant cures. Sealing sticks are available in many different widths. Choose the best suitable for the width of the joint in question.

Maintenance of joints:

Joints should be cleaned and inspected frequently. Damage, if any, should be mended in order to secure the functioning of the joint.

Normal cleaning is best carried out with a soft brush. It is important that dust, algae, moss, dirt etc. is removed. Otherwise, breeding ground is provided for micro organisms, which will result in discolourations. Thereafter the joint is cleaned with water and soap. Other cleaning remedies are chlorine, ammonia water or detergent. If these chemical remedies are used, it is important to rinse thoroughly with clean water afterwards. When cleaning joints it is important not to make a heavy mechanical wear, as the sealant in some cases can be damaged. A rough and uneven surface is more difficult to keep clean and increases the risk of unwanted coatings, growth and discolourations.

Cleaning:

All tools must be cleaned as soon as possible after sealing, as cured sealant can be difficult to remove. Use the cleaning remedies recommended by the supplier, frequently warm water or organic solvents - dependant on the type. Hands and skin is always washed with water and soap - if necessary with a pumice stone. Cured sealant is to be removed with Silicone remover 911.

Silicone Remover 911 removes cured silicone on most materials and leaves completely silicone free surfaces. Also suitable for removing small areas with mould fungus on silicone sealant. Can be used on wood, brickwork, gypsum board, concrete, glass, enamel, china, metals, artificial materials, and textiles. For further information please refer to Product Information Sheet

Glass, China and Ceramics

Clean with a solvent on clean cloths, e.g. acetone.

Metal

Remove any rust with a wire brush or a scraper. Any protective film on f.ex. aluminium windows must of course be removed.

Wood

Remove any loose paint. The remaining paint is cleaned in order to remove dirt and grease.

Plastic and Similar

Clean and degrease if necessary with a special cleaner. Release agents on PVC windows must be removed.

Concrete, Natural stone, Tile and Similar

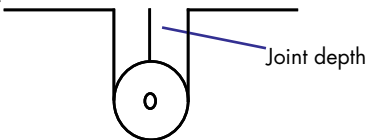
Remove loose particles with a brush. Any alkaline covering is removed. Concrete must be fully cured. Very strained joints, e.g. movement joints or joints in horizontal divisions can be cleaned by sandblasting. Please note if the concrete elements are treated with dirt or water repellent agents, as this can reduce the bonding ability.

Joints dimension:

To secure the joint long life and reduce the risk of damage, there must be an appropriate ratio between depth and width.

It is important to place the movements in the sealant instead of in the bonding surfaces, which are always the critical point.

The depth of a joint is measured at the thinnest point:

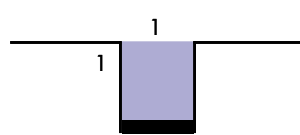


The ideal depth of a joint depends, whether an elastic or a plastic sealant is being used.

Plastic sealants:

$$\text{Depth} = \text{Width} / 5 + 8 (\pm 2 \text{ mm})$$

As a rule of thumb the joint should be as deep as it is wide.

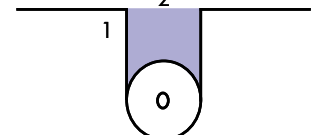


Elastic sealants:

$$\text{For joints } \leq 20 \text{ mm:} \\ \text{Depth} = \text{Width} / 5 + 5 (\pm 2 \text{ mm})$$

$$\text{For joints } > 20 \text{ mm:} \\ \text{Depth} = \text{Width} / 5 + 4 (\pm 2 \text{ mm})$$

As a rule of thumb the joint should be half as deep as it is wide.



The information and data contained in this Product Information brochure are based on extensive laboratory testing and our practical experiences, and are meant for helping the user to find optimum working methods. As the conditions at the user are beyond our control, we make no warranties concerning the results, achieved by the products. The informations in this Product Information brochure are typical values, intended as a guideline. They should not be regarded as product specifications. **Please also refer to our standard sales conditions and terms of delivery.**

CONSUMPTION OF SEALANTS: 300 ml

		Joint width (mm)												
		6	8	10	12	14	16	18	20	22	24	26	28	30
Joint depth (mm)	6	8.3	6.2	5.0	4.1	-	-	-	-	-	-	-	-	-
	8	-	4.6	3.7	3.1	2.6	2.3	2.0	1.8	1.7	1.5	1.4	-	-
	10	-	-	3.0	2.4	2.1	1.8	1.6	1.5	1.3	1.2	1.1	1.1	1.0
	12	-	-	-	2.0	1.7	1.5	1.3	1.2	1.1	1.0	0.9	0.8	0.8
	14	-	-	-	-	1.5	1.3	1.1	1.0	0.9	0.8	0.8	0.7	0.7



DI **DANA LIM A/S**
 Københavnsvvej 220
 DK-4600 Køge
 Phone: (+45) 5664 0070
 Fax: (+45) 5664 0090
 Technical Service: 5664 0075