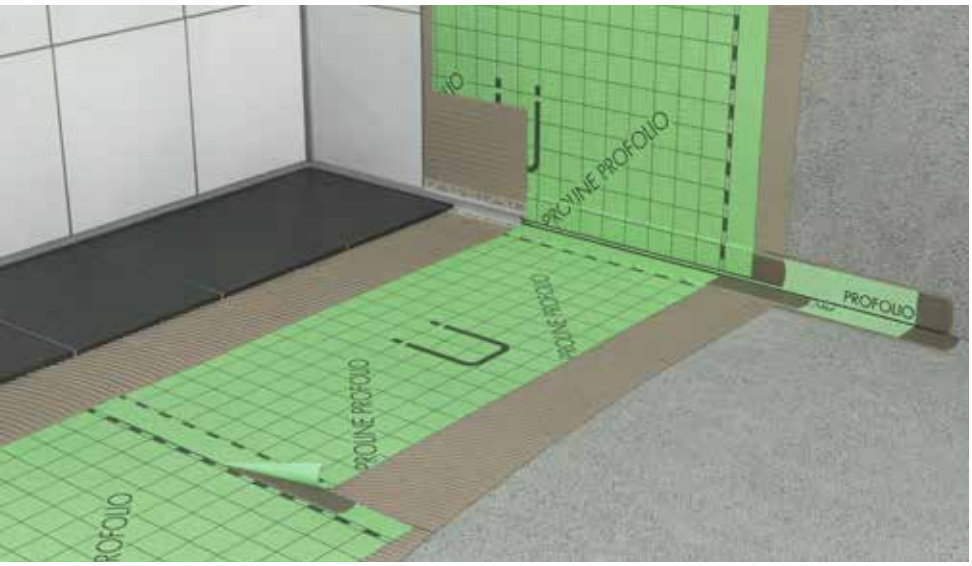
PROLINE

PROFOLIO

system with PROFIX DS sealing gels

Sealing and decoupling membrane under tiled and slab coverings



Fields of application:

PROFOLIO is a flexible, crack-covering sealing and decoupling membrane for creating joint seals in damp and wet rooms and in areas with moderate chemical loads for moisture resistance classifications A, A0 and C. According to DIN 18534 this corresponds to the water performance classes W1-I, W2-I and W3-I. Typical areas of application include private bathrooms, commercial bathrooms and shower cubicles, e.g. in hotels, hospitals and care homes, laundries and other wet areas such as swimming pool walkways and similar locations.

PROFOLIO has a crack covering effect, providing a high level of safety against cracks that may appear later in installation substrates such as screed.

PROFOLIO protects moisture-sensitive substrates, such as wooden structures or substrates containing gypsum, from damage from the effects of moisture and water vapour.

PROFOLIO is used on wall and floor surfaces that have mainly pedestrian traffic. Light to medium loads from wheels or rollers with pneumatic or rubber tyres are possible.

PROFOLIO can be fitted on or under underfloor heating.

The PROFOLIO system with PROFIX DS sealing gels is a sealing system approved by building authorities (abP).

The system includes **PROFIX DS sealing gels**, **PROFIX** dispersion fixative as well as sealing tape, corners, liners and one-component Ottocol M500 adhesive and sealant.

- For joint sealing in damp and wet rooms and in areas with moisture resistance classifications A, A0 and C in accordance with ZDB bulletin "Joint sealing"
- Under ceramic tiling and slab coverings made from natural, precast and artificial stone as well as appropriate wood flooring
- In domestic, commercial and industrial areas.
- On screed floors, concrete floors, prefabricated parts, cavity floor structures or wooden floor structures, old tiles or slab flooring
- On lime cement, cement and gypsum plaster, plasterboard, gypsum fibreboard and dry lined walls, tile support elements and EPS, XPS or PU foam boards
- Can be used on electric heating conductors or hot water floor heating
- To protect the supporting substrate against tempering water of screeding mortar

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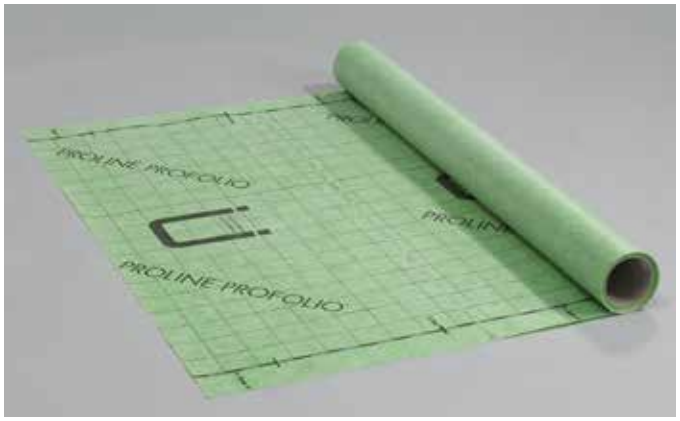
Product advantages:

PROFOLIO is easy to work with and can be cut easily using a sturdy cutter knife or scissors. The fleece material lining both sides enables a good bond to mortar or adhesive.
PROFOLIO is ready to use and facilitates a quick transition to the next work step. The prescribed layer thickness test is rendered superfluous. The low thickness helps to achieve a flat, level finish.
PROFOLIO is resistant to many acids, bases, salts, organic solvents, alcohols and oils (see resistance list in appendix).
PROFOLIO is resistant to ageing and is non-toxic.
PROFOLIO is flexible, rot-proof, resistant to bacteria and fungus and also poses no threat to drinking water.



- Lightweight and easy to work
- Ready to use with defined coating thickness
- Crack covering flexibility
- Damp inhibiting
- Certified complete system with general building inspection test certificates
- Decoupling

PROLINE®
P-5109/545/10-MPA BS
P-5183/619/10-MPA BS
MPA Braunschweig

P-AB/24602/24-2013
Kiwa GmbH
TBU

Delivery form:

Sheet material wound onto a roll, 1.00 m wide	
Rolls with 5 m^2	Art. No.: 93501
Rolls with 30 m^2	Art. No.: 93502

Specifications:

PROFOLIO sealing and decoupling membrane	
Material	Polyethylene film laminated with thermal nonwoven PP fabric layer on both sides.
Colour	Green
Width	1 m (+/– 3 mm)
Thickness mm)	approx. 0.4 mm (+/– 0.1
Weight	approx. 277 g/m^2 (+/- 6%)
Consumption values	approx. 1.05 m/m^2
Fire rating 4102-1	B2 in acc. with DIN
Burst pressure max.	>2.8 bar
S_D value	>50 m
Processing/substrate temperature	+5 °C – +25 °C
Temperature resistance	-30°C to +90°C

General building inspection test certificate:

On request, a copy of the test certificates can be sent to the e-mail address or fax number you provide or via download from www.proline-systems.com/downloads.

Storage and transportation:

PROFOLIO rolls and accessory parts should be stored and transported in a cool and dry place with protection from dirt and direct sunlight. Ideally, **PROFOLIO** rolls should be stored upright. The storage period under these conditions is 24 months.
The storage life of the products below is based on storage in original packaging in a cool location protected from moisture and frost:

- Ottocoll M500 adhesive and sealant 9 months
- PROFIX dispersion fixative 12 months
- PROFIX DS sealing gel 12 months

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Environmental protection and disposal:

Dispose of outer packaging, containers and leftover product as stipulated by law and in accordance with regional regulations.

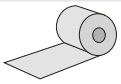
Instructions on hazardous goods and substances:

For **PROFIX DS** sealing gels, observe the information in the associated safety data sheets.

Additional products required:

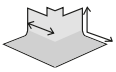
PROFOLIO sealing tape:

Type	Highly flexible, laterally elastic tri-laminate, fleece-backed on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Total width	approx. 120 mm (+/- 2 mm)	
Rolls with	50 m (with scaling)	Art. No. 93131
Rolls with	10 m	Art. No. 93141



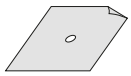
PROFOLIO sealing tape corners:

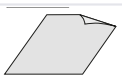
Type	Highly flexible, laterally elastic tri-laminate, fleece-backed on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Total width	approx. 60 + 60 mm	
Leg length, inner corner	approx. 120 mm	
Leg length, outer corner	approx. 110 mm	
Each carton has	25 pieces	
Internal corner		Art. No. 93518
External corner		Art. No 93519



PROFOLIO sealing liners:

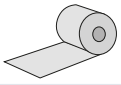
Type	Highly flexible, laterally elastic tri-laminate, fleece-backed on both sides	
Colour	Green	
Thickness	approx. 0.7 mm	
Wall sealing liner incl. 15 mm hole		Art. No.: 93512
Size	120 x 120 mm	
Each carton has	25 pieces	
Floor sealing liner		Art. No.: 93510
Size	425 x 425 mm	
Each carton has	10 pieces	





PROFOLIO butt-joining tape:

Material	Polyethylene film laminated with thermal nonwoven PP fabric layer on both sides.	
Colour	Green	
Width	approx. 150 mm	
Thickness	approx. 0.4 mm (+/– 0.1 mm)	
Length	approx. 25 m	
Each carton has	1 pieces	Art. No. 93513



PROFIX DS sealing gel:

Type	Fast and elastic hardening 2 component sealing gels for bonding seal under ceramic coverings	
Colour	Black-brown	
Bulk density	~ 1.14 g/cm³	
Mixing ratio	1 GT comp. A / 1 GT comp. B	
Wet layer thickness	3 mm	
Delivery form	A & B component, 1.75 kg of each in mixing container	Art. No.: 93784
For more information, please refer to the data sheet or safety data sheets.		

PROFIX:

Material	Low-emission, high-strength dispersion fixative	
Density	1.2 g/cm³	
Colour/Layer	Light beige	
Processing temperature	+15 °C to +35 °C	
Temperature resistance	-40 °C to +80 °C	
Delivery form	Bucket with ready-to-use dispersion fixative	
Bucket with	2 kg	Art. No.: 93759
Bucket with	5 kg	Art. No.: 93780
For more information, please refer to the data sheet.		

Ottocoll M500:

Material	Hybrid adhesive and sealant single-component adhesive and sealant with a STPU hybrid polymer base	
Colour	White	
Delivery form	310 ml cartridge	
		Art. No. 93514
The technical bulletins of the manufacturer, Hermann Otto GmbH, must be observed.		

Construction chemical products:

The manufacturer's technical bulletins must be observed.

Product:	Manufacturer:
ARDEX X7G FLEX	Ardex GmbH
Botament M 21 Classic	Botament Systembaustoffe
Ceresit CM 17	Ceresit Bautechnik
Codex Power CX3	Uzin Utz AG
PCI Flexmörtel	PCI Augsburg GmbH
PCI FT Extra	PCI Augsburg GmbH
Sopro's No. 1	Sopro Bauchemie GmbH
Weber.xerm 859 F	Saint-Gobain Weber GmbH
Weber.xerm 862	Saint-Gobain Weber GmbH
BCU FH 90 Flex	Bauchemie Uplengen GmbH
MONOFLEX	Schomburg GmbH & Co. KG

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Moisture resistance classification (MRC) / water class / norm	**Substance 1** For bonding sealing tape, bonding membrane downwards, mortar/adhesive laying	**Substance 2** For bonding overlap zones	**Substance 3** For bonding liners to walls and floors	**Substance 4** For bonding membranes to walls
A / W2-I/ DIN 18534-5 (wet rooms)	ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX	PROFIX DS	PROFIX DS Ottocoll M500	PROFIX ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX
A0 / W1-I	ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX	PROFIX DS	PROFIX DS Ottocoll M500	PROFIX ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX
C / W3-I (chemical resistance)	ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX	PROFIX DS	Ottocoll M500	PROFIX ARDEX X7G FLEX Botament M 21 Classic Ceresit CM 17 Codex Power CX3 PCI Flexmörtel PCI FT Extra Sopro's No. 1 Weber.xerm 859 F Weber.xerm 862 BCU FH 90 Flex MONOFLEX

Preparation/assessment of substrate:

The substrate must be level, clean, dry, free of separating agents, free of loose or easily detachable materials and capable of taking the intended load through sufficient adhesion, rigidity and flexural resistance. It must be intact and have a load distributing effect over the surface.

Any deformation in the substrate due to shrinkage must have reached its final extent and no other deformations may be possible.

The substrate should be checked to ensure that it is suitable for the planned moisture resistance classification (ZDB bulletin "Notes for performing joint sealing…").

The evenness of the substrate must meet the necessary quality requirement depending on the subsequent surface layer. Levelling work must be carried out before laying **PROFOLIO**.

Existing cracks in the substrate >0.4 mm must be sealed and plugged properly and must not exhibit any offset in height over time. Ruptures in substrates are to be limited to a maximum

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rupture width change of 0.2 mm Surface-level hairline and shrinkage cracks (<0.4 mm wide) without any effect on the stability of the substrate can be reworked independently with **PROFOLIO**.

Substrates must be assessed and prepared according to the relevant codes of industrial practice.

The manufacturer's details on the chemical products used must be observed.

Ideal tools:

Tool	PROFIX DS	Adhesive	PROFIX	Ottocoll M500
4x4 toothing	X	X	-	X
3x3 toothing	X	X	-	X
Lambswool roller	-	-	X	-
Flat brush	X	-	X	-
Caulking gun	-	-	-	X

Thin protective gloves are recommended for working with the materials.

Installation conditions:

When preparing the substrate, the substances/materials being used must have reached their nominal strength and readiness for covering (e.g. primer, filling and levelling compounds).
The room and substrate temperature should be between +5 °C and +25 °C. It would be pertinent to adjust the climatic conditions to those expected during later use.

The prepared substrate should be pretreated, in accordance with its type and structure, for subsequent bonding of **PROFOLIO** and adapted to the thin-bed mortar being used (observe the manufacturer's specifications).
The thin-bed mortar used on and under **PROFOLIO** must always have a minimum quality rating of C2 in accordance with DIN EN 12004.
The aforementioned thin-bed adhesives tested in the system (abP) provide the best bond strength to **PROFOLIO**.

Only these thin-bed adhesives are to be used for the application range of the abP (MRC A and C respectively WEK W2-1 and W3-1).
Alternatively, **PROFOLIO** with **PROFIX dispersion fixative** can be used as an adhesive in wall areas.
If in any doubt or if material incompatibility is suspected, carry out tests in advance or seek technical advice.

Processing:

Working with PROFOLIO sealing tape:
First, stick down all of the necessary **PROFOLIO sealing tape corners** (internal and external corners) with **Substance 1**.
Then, cut **PROFOLIO** sealing tape to the required length, including overlapped areas **(at least 5 cm)**, and again stick down using **Substance 1** centrally (see printed centre line) over the expansion joints and over the floor/wall corner; use **PROFIX DS** in the overlap area. No adhesive or mortar should come into contact with the edge strip (width) and expansion joints (if necessary, mask off in advance using suitable narrow adhesive tape).
Using a suitable spatula or trowel, press on the sealing tape, corners and overlapping zones so that good contact is made and creases are removed. Work any excess material that escapes over the edge of the adhesive joint and smooth down.

Ensure that the sealant is applied sufficiently to cover the full area and no ridges or air bubbles remain in the sealant beneath the **PROFOLIO** system parts.

Working with PROFOLIO sealing and decoupling membrane
Using a 4 mm toothed smoothing trowel, spread the mortar of **Substance 1** over the width of the strip. Then lay the perfectly cut strips immediately and press down hard or, if necessary, press on using a smooth float or smoothing trowel.
The time it takes to fit the strips dictates the amount of mortar that should be spread. Do not spread more than can be used before it hardens.
Ensure that the membrane is laid without creases and that it is embedded across as much of the area as possible. Fit all other strips so that there is an overlap of at least 5 cm over the next strip. For floor-level showers, arrange the overlapping joints in the direction of the gradient.
Only apply **Substance 1** up to the edge of the next strip. Evenly

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apply **Substance 1** just up to the edge of **PROFOLIO sealing tape**.
The **PROFOLIO butt-joining tape** can be used in the joint area of the strips.
Any overlap within the membrane area and any overlaps at the end of the sealing tape must be bonded in the way described before using **PROFIX DS**.
Afterwards, bond **PROFOLIO** at the sealing tape in front of the walls and rising parts using **PROFIX DS** and smooth down.
Do not expose PROFOLIO to mechanical loads or moisture before the nominal strength has been reached.

Working with PROFOLIO sealing liners:
PROFOLIO sealing liners are fitted on walls and floors in the aforementioned way, by bonding fully over **PROFOLIO** using **PROFIX DS**.

Floor drainage points require a suitable adhesive flange or a loose-fixed flange.

PROFOLIO floor liners:
From the sealing liners, mark the opening according to the intended floor drain opening, cut to fit and integrate in the loose-fixed flange structure.
If using bonded flange connections (or a counterflange combination), cut out the opening in the same way.

Moisture resistance classifications (called MRC below) A respectively water class (called WEK) W2-1.
In these classifications, sealing liners are bonded over the sealing flange with **Ottocoll M500**. Further bonding over **PROFOLIO** is performed with **PROFIX DS.**

MRC C respectively WEK W3-1
In this classification, the sealing liners are bonded only using **Ottocoll M500**.

PROFOLIO wall liners:
The wall liners are already stamped with a 15 mm hole in the centre. For larger pipe apertures, increase the size of the stamped hole so that the diameter of the stamped hole is at least 7 mm smaller than the pipe aperture and the resulting sheath effect of the liner is at least 2 mm high and wraps around the pipe evenly.

MRC A version / WEK W2-1:
Spray a thick bead of **Ottocoll M500** around the connecting point between the pipe and the wall. Fit the liner over the pipe and press into the sprayed on bead.
Bond the remaining area of the liner onto the **PROFOLIO** using **Ottocoll M500** or **PROFIX DS**.

MRC C version /WEK W3-1:
Spray a thick bead of **Ottocoll M500** around the connecting point between the pipe and the wall. Fit the liner over the pipe and press into the sprayed on bead.
Now, completely bond the remaining area of the liner onto the **PROFOLIO** using **Ottocoll M500**.

Using a suitable spatula or trowel, press on the liners so that good contact is made and creases are removed. Work any excess material that escapes over the edge of the adhesive joint and smooth down.

Ensure that the sealant is applied sufficiently to cover the full area and no ridges or air bubbles remain in the sealant beneath the **PROFOLIO** system parts.

On completion of the sealing work, check the areas for damage, insufficient bonding, creases, blisters or perforations and carefully rectify as necessary.

The surface layer is laid once the sealants/thin-bed mortars have reached their nominal strength and hardened sufficiently and the film and sealing tape hold firm. This depends on the climatic conditions at the building site and the existing substrate.

Sealed-in pipes must not be turned any further or removed as otherwise there is a risk of impairing the sealed joint.

Laying tiles + slabs:
Using the thin-bed adhesives listed in the **Substance 1** column, the tiles and slabs are laid using the thin/medium-bed method according to the relevant codes of industrial practice and the manufacturer's specifications for the respective construction chemistry.

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Processing as decoupling layer:

Provided **PROFOLIO** is used exclusively as a decoupling membrane, there is no need to use sealing tape and sealing liners.

The membrane overlaps can then be stuck down using the thin-bed adhesive employed to bond the membrane.

Chemical resistance of PROFOLIO:

Resistance after 7 days in storage at room temperature to following chemicals (internal examinations)	+ = resistant 0 = weakened – = not resistant
Hydrochloric acid 3%	+
Sulphuric acid 35%	+
Citric acid 100 g/l	+
Lactic acid 5%	+
Lime potash 3%/20%	+/+
Sodium hypochlorite 0.3 g/l	+
Seawater (20 g/l seawater)	+
Solvent up to max. 3%	+

Standards and regulations:

Aside from all the relevant and currently applicable bulletins, standards and directives, the information listed as follows is recommended:

- DIN 18352 Tile and slab laying work
- DIN 18332 Natural stone work
- DIN 18333 Cast stone work
- DIN 18353 Screed work
- DIN 18195 Building seals
- DIN 18534 Waterproofing for indoor applications in particular
- DIN 18534-1 Requirements and principles for design and execution
- DIN 18534-5 Waterproofing for indoor waterproofing materials in sheet form in conjunction with tiles
- DIN 18202 Tolerances in building construction
- DIN 18560 Screeds in building construction
- DIN EN 13813 Screed mortar and screed masses
- DIN 4109 Sound insulation in buildings
- Bulletins from German Association of Screed and Flooring
- Bulletins from Association of Tiles and Natural Stone in the Central Association of the German Construction Industry, in particular:

  – Joint sealing
  – Expansion joints
  – Substrates in damp rooms
- Interface co-ordination of heated underfloor structures
- ZDB tile and slab information "Information on decoupling"
- German Natural Stone Association – Building information about natural stone

All details were determined with the greatest of care and serve as an aid for orientation. They were calculated for the **PROFOLIO** product and not for the whole system.

Important information:

- Plastic hardened mortar, dispersions and elastic filling and sealing compounds must be allowed to dry completely at least once before they reach their maximum operational integrity and the surfaces can be approved for their intended use.
- **PROFOLIO**, when used as a decoupling membrane, is not a substitute for the installation of expansion joints or planning and adherence to sufficiently sized work zones.
- **PROFOLIO**, when used as a sealing membrane, is not substitute for building seals in accordance with DIN 18531, DIN 18533 and DIN 18535 as well as the versions for flat roofs.
- Polyethylene has only limited resistance to UV radiation and must be protected from direct sunlight.
- Underfloor heating must be equipped with a warm-up thermostat and must not exceed a surface temperature of 28 °C.
- Screed floors pose the risk of subsidence or dipping from cupping causing cracks in installation parts and walls and the floor covering or sealing and decoupling membrane shearing away in the stress zone.
- Wood substrates, such as wooden floorboards, OSB boards and the like, have to be rigidly connected to the load-bearing substrate to prevent bending. Total deformation must not exceed L/500.

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- The mechanical load from wheels/rollers depends on the weight of the rolling load, the type, size and material of the wheel. These parameters result in the relevant wheel compression force. The wheel-based pressure on the surface layer laid over

PROFOLIO must not exceed 2 N/mm². The breaking strength of the tiles or slabs must be high enough to allow this (> 3500 N if necessary). If the use of industrial trucks is planned, seek advice first regarding their application. The use of lift trucks with metal rollers and polyamide wheels generally results in high mechanical loads. **PROFOLIO** is not suitable for this application.

- In general, floor coverings made of tiles and paving are non-flexible. Substrates must therefore not deform or sag under the loads anticipated in the rooms.
- **PROFOLIO** is often used in a wide variety of applications and combinations. The floor covering material may have a number of different qualities. Our specifications can only provide general information for this reason. If special or certain areas of use are not covered, e.g. where unconventional physical or chemical loads are experienced, each individual scenario must be clarified.
- The covering material on walls above the composite seal should not exceed 150 kg/m² with full mortar coverage.

The sub-structure's load bearing capacity must be taken into consideration. This must be capable of bearing the attached load with absolutely no bending or infringement of dimensional stability.

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