

TAKE THE BEST

Decades of quality from Austria! www.sihga.com



SIHGA®

SENOFIX® GUIDE

MADE IN AUSTRIA

HIDDEN STRENGTH, VISIBLE BEAUTY

In an era where aesthetics, functionality, and long-lasting, high-quality workmanship are becoming increasingly important, **hidden fastening solutions** offer a wide range of possibilities for modern deck design.

This brochure is intended to provide comprehensive guidance on the use of the **SenoFix® II SX** and **SenoFix® FT fastening methods** in deck construction.

From planning and material preparation through to the actual installation, we offer **step-by-step instructions and valuable tips** to help you get the most out of these fastening solutions.





SenoFix® FT
for terrace application



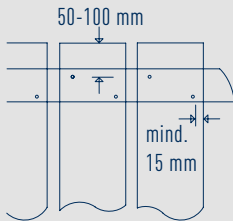
SenoFix® II SX
the original

SIHGA® provides innovative construction
technology and support for the future



DESIGN RECOMMENDATION

for deck construction

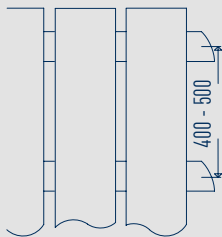


01

The wood moisture content must not exceed $16\% \pm 2\%$ at the time of installation. Preferably, rift-cut or semi-rift-cut lumber (boards with vertical growth rings) should be used.

01 The fastening distance from the end grain must be at least 50 mm and no more than 100 mm!

With tannin-rich woods, chemical reactions can cause **corrosion and dark discoloration** when using coated screws.



02

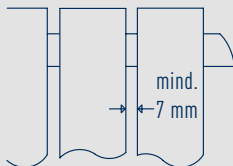


Only stainless steel should be used for fastening decks!

02 For the center-to-center spacing of the substructure, we recommend the following:

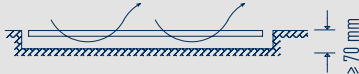
- for thermally treated wood and hardwood: 400–450 mm
- for larch: 400–500 mm

Short center-to-center distances ensure that warping or twisting of individual deck boards due to swelling and shrinkage is kept to a minimum and that the deck surface **remains level and free of tripping hazards**. The **substructure** should be **made of TefaFix® T** or the same type of wood as the decking boards .



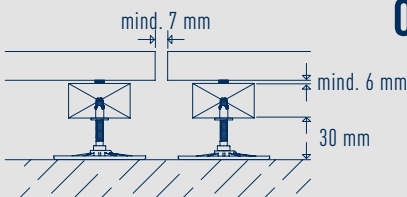
03

03 The **joint width** for decking boards 90–120 mm wide should be at least 7 mm or 6% of the board width!
The planks must not be blocked at the joints!



04

04 For **recessed deck structures** with a low installation height, a distance from the ground to the top edge of the deck board of ≥ 70 mm is required to allow for **ventilation of the deck structure** .



05

05 The gap between the deck boards and the substructure should be at least 6 mm to ensure **proper ventilation of the deck** and **prevent capillary action**; this also applies to objects placed on the deck.

05 The **longitudinal joint of decking boards** should not be placed directly on the substructure but rather between two substructure battens. For longitudinal joints as well, a **joint spacing of at least 7 mm** must be maintained.

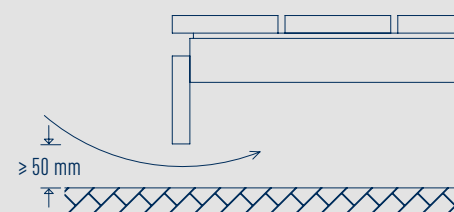
Joining decking boards directly on the subframe would lead to increased moisture absorption and, consequently, premature damage.

A gap of at least 30 mm is required between the subfloor and the flooring to prevent moisture damage! This gap should be filled with leveling feet or EPDM materials; under no circumstances should plastic granules or wood be used. Rising damp from the ground must be prevented.

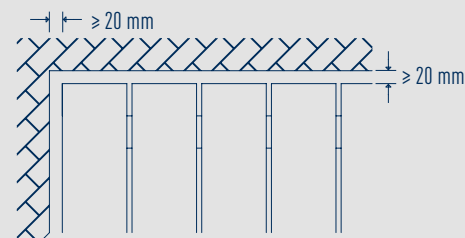
06 If the terrace is enclosed on one side by a cover board, a **continuous supply-air opening of ≥ 50 mm** must be maintained to ensure ventilation of the terrace structure. The cover board should not touch the ground.

07 When connecting the deck to **adjacent structural elements**, a **gap of ≥ 20 mm must be maintained** to prevent the joints from closing due to dirt accumulation or changes in the deck boards. Unobstructed water drainage on and beneath the deck must be ensured at all times. The deck should be cleaned regularly.

06



07



Recommendation: Pilot Hole Diameter and Wood Species

Decking	Substructure	Pre-drilling	Pilot holeØ	Recommended screw
Softwood	Softwood	Recommended	Ø of the screw	L-GoFix® MS
Hardwood	Hardwood	required	Ø of the screw + 0.5 to 1 mm	L-GoFix® MS or L-BohrFix® MB A4
All	TefaFix®, SymbioFix®, and conventional aluminum	required	Ø of the screw + 0.5 to 1 mm	Alu-BohrFix® MB
All	TefaFix®, SymbioFix®, and conventional aluminum	Not required*	-	Alu-TeFix®
All	all types of wood	Not required*	-	TeFix®

For woods with high tannin content, we recommend L-BohrFix® MB A4 for wood-UK and Alu-TeFix® in A2 for Alu-UK.

* except for extremely hard woods (e.g., Ipé) with screw DIAMETER

FEATURES AND BENEFITS

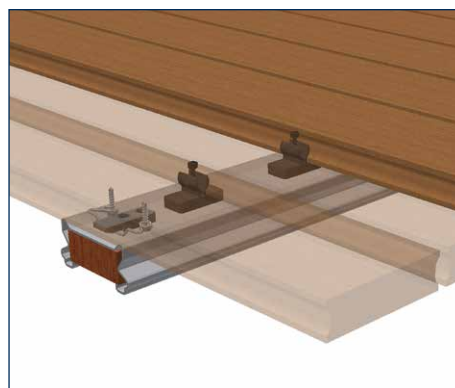
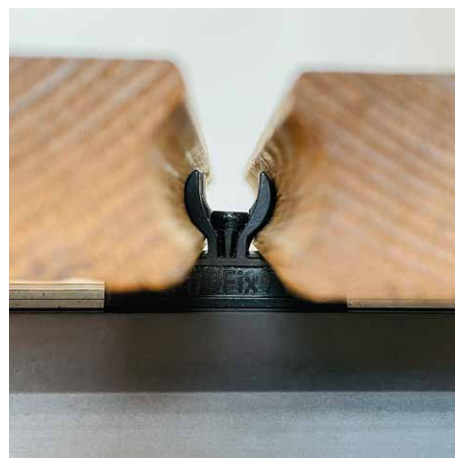
SenoFix® FT



- **for untreated, profiled wooden planks released by SIHGA®**
we recommend using TefaFix® T rail as substructure
- **manufactured, developed, and patented in Austria**
highest European quality and value creation
- **screwed fastening for floorboards only in the joint with the SenoFix® FT, cover- and lateral surfaces of the boards remain unharmed**
creating a visually appealing surface is quick, simple and precise
- **expansion mechanism with joint width of 7 mm in final state**
no spacers needed for assembly
- **possible without additional tools**
no additional costs for clamps or belts, etc.
- **connector height per the latest state of the art**
automatic spacing from substructure of 8 mm
- **stabilises and compensates for any swelling and shrinkage in the wood**
increases the lifespan of the terrace considerably
- **only 1 screw per attachment point**
requires 50 % less installation time and provides perfect grip
- **available with two different screw lengths**
use on wood and alu substructure
- **produced of reinforced SIHGAMID®**
is therefore permanently heat-, frost- and UV- resistant
- **attachment screw made of hardened stainless steel**
is permanent and break-proof
- **including SIHGAFIX® stainless steel, all attachment screws and installation instructions**
time-saving, practical, precise, all accessories are included, SIHGAFIX® stainless steel prevents extraneous rust
- **quantity calculation per m²**
1: Sub-frame spacing [m]: (Plank width [m] + Joint [m])
- **HFA inspected in combination with thermo ash**

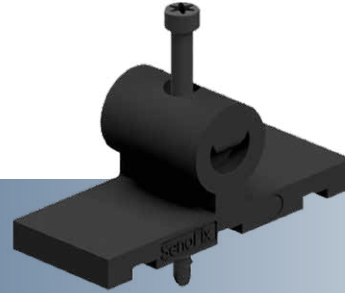
SIHGA® TIP:

Follow the installation recommendations (pages 4–5). For oiled decks, we recommend SenoFix® II SX.



SenoFix® FT + GleitFix® AE on SymbioFix®

SenoFix® II SX



- **for oiled, profiled wooden planks released by SIHGA®**
we recommend using TefaFix® T rail as substructure
- **developed, patented and made in Austria**
top European quality and added-value, 1,1 million m² of terraces already laid
- **only in the joint through the SenoFix® II SX screwed plank fastening without damaging the top and side surfaces of the planks**
the optically elegant surface is created simply, quickly and precisely
- **automatic distance to the substructure**
the terrace remains well-ventilated, timber can dry well, accumulations of water are prevented
- **reveal joint width 6 mm**
never lay without TerrassenFix® Clamp III including Joint Spacer Clamp FAZ
- **stabilises and compensates for the wood's swell and shrinkage processes**
significantly increases the lifespan of the terrace
- **only 1 screw per fastening point, which extends 25 mm into the substructure**
saves 50 % installation time and establishes a perfect hold
- **made from thermoplastic elastomer, the permanently elastic material**
is UV, frost and heat resistant, provides product assurance also for the future
- **fastening screw made from hardened stainless steel**
rust-free and break-proof fastening, for professional and practical work without lost time
- **includes SIHGAFIX® stainless steel, all fastening screws and installation instructions**
time-saving, practical, precise, all accessories enclosed; SIHGAFIX® stainless steel prevents rust from external sources
- **quantity calculation per m²**
1:substructure spacing [m]:(board width [m] + joint [m])

SIHGA® TIP:

Follow the installation recommendations (pages 4–5) and **never lay without TerrassenFix® Clamp III.**



TerrassenFix® Clamp III



FT OR II SX?

Making the Right Choice

SenoFix® FT



For use with wood species approved and tested in collaboration with the wood trade.

This product is suitable only for **untreated wood species**.

Oils, glazes, or similar products have a negative effect on noise levels between the plastic and the coated wood.

To ensure the correct screw-in depth, the **TerrassenFix® depth limiter TTB** is recommended.

Recommended uncoated wood species:
Accoya, thermally modified ash, teak, and woods with similar or identical material properties.

Deck board dimensions, such as thickness and width, can be found in the respective conformity assessments provided by the specialized wood traders.

To secure the planks lengthwise, we recommend fastening each plank with a visible screw at the beginning or end.

SenoFix® II SX



For use with wood species approved and tested in collaboration with the wood trade.

This application is also suitable for **pre-oiled, post-oiled, stained**, or similar wood planks.
Please follow the manufacturer's instructions regarding the finish.

To provide the fastener with the necessary pre-compression, the **use of the TerrassenFix® clamp and the FAZ 6 mm joint spacer** is required.

Recommended wood types:
Finger-jointed larch, thermally treated pine, thermally treated ash, Accoya, Kebony, as well as woods with similar or identical material properties.

Deck board dimensions, such as thickness and width, can be found in the respective conformity assessments provided by the specialized wood traders.

To secure the planks lengthwise, we recommend fastening each plank with a visible screw at the beginning or end.

With the **new version of the SenoFix® FT**, various customer requests and technical improvements have been successfully implemented. Notable improvements include **modifications to the fasteners and enhanced user-friendliness** regarding the installation tool.

These modifications now enable comprehensive coverage of **approved wood species and dimensions by the SenoFix® II SX and the updated SenoFix® FT**. This includes naturally oiled, stained, or similarly treated wood species.

For both systems, the **installation instructions and design recommendations** must be followed.

When using **SenoFix® FT**, the **depth limiter is recommended**, as maintaining the exact screw-in depth is crucial for the system's proper function.

Both fastening systems, SenoFix® II SX and SenoFix® FT, can be **purchased in combination with the corresponding deck boards at specialty lumber stores**.



To find a retailer near you, please contact support@sihga.com

WOOD SPECIES

The most important factors to consider when selecting the right SenoFix® system are the swelling and shrinkage characteristics of the various types of wood.

Swelling and Shrinkage Behavior

Wood is a versatile building material characterized by certain physical properties, including its swelling and shrinkage behavior. These properties significantly influence the use of wood in various applications, particularly in deck construction when using force-fit and/or form-fit joints.

Swelling behavior of wood:

The swelling behavior of wood refers to the material's ability to absorb moisture. The fibers are capable of absorbing water, causing the wood to swell. The extent of swelling varies depending on the type of wood and its density. In high humidity or when in direct contact with water, wood swells, while it shrinks in dry environments. This behavior can lead to warping, cracks, and other structural problems; it also increases stress on the fastening system.

Shrinkage behavior of wood:

The shrinkage behavior of wood is the opposite of its swelling behavior. It describes the tendency of wood to release moisture as it dries. This shrinkage can lead to cracks and warping, and force- and/or form-fit connections reach their performance limits. Uneven drying can cause stresses in the wood, which can compromise its structural integrity.

Influencing factors:

The swelling and shrinkage behavior of wood is influenced by several factors, including the wood species, density, direction of cut (radial or tangential), and environmental conditions such as temperature and humidity.

Average expansion and shrinkage*

- Larch 5,6%
- Spruce 5,7%
- Ipe 5,9%
- Teak 4,4%

Considerations for Deck Construction:

It is crucial to take the swelling and shrinkage behavior of wood into account to ensure its longevity. This is achieved through careful design, selecting the right fasteners, and using construction methods that allow for the wood's natural movement.

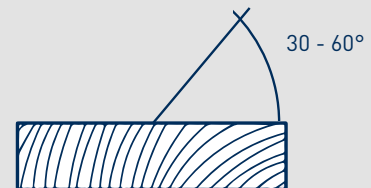
In summary, understanding the swelling and shrinkage behavior of wood is crucial to ensuring that wooden structures can withstand the stresses over time. It requires professional planning and execution to make the most of the benefits of this sustainable and versatile building material.

Special attention should also be paid to the quality of the planks' cut. It is important to note that vertical growth rings are always more durable and less prone to movement. This is a major advantage for both the longevity and the functionality of all installed components.

DIRECTION OF CUT



Rift-sawn board



Half-rift-sawn board



Flat-sawn boards

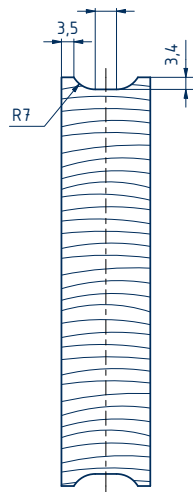
*Source: HFA, Technical Brochure "Wooden Deck Decking"

WOOD APPROVAL

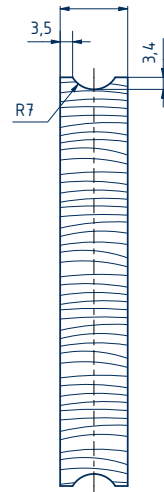
Information

The combination of SenoFix® and decking boards is tailored to individual requirements by SIHGA® product management in consultation with the specialized wood trader; interested parties can obtain detailed information at support@sihga.com.

Varies depending on board thickness



19 min. Thickness



TOOLS

Perfect for installation

for SenoFix® FT

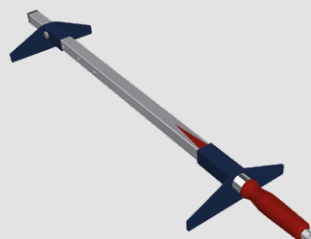


TerrassenFix® Depth Limiter TTB

The TTB depth limiter, when used in combination with the SIHGAFIX® TX 20, 77 mm, prevents the screws from being driven too deeply into the connector; all screws are driven to the same depth, and the SenoFix® FT retaining clip is optimally tensioned. If a clamp is used during installation, the FAZ 7 mm joint spacer must be used.



For SenoFix® II SX



TerrassenFix® Clamp III

The TerrassenFix® Clamp III is the ideal, essential tool for installing decking boards with the SenoFix® II SX.

The FAZ 6 mm joint spacer ensures the optimal joint width and proper fit of the connector.



For SenoFix® FT & for SenoFix® II SX



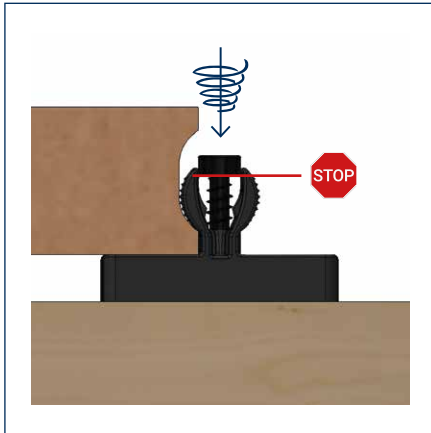
GleitFix® AE

A beautiful finish:
Concealed fastening of the starting and end decking boards with SenoFix®.



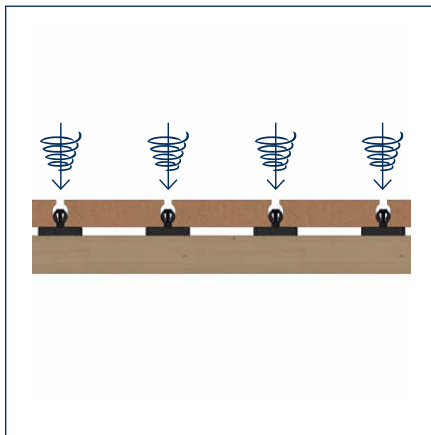
INSTALLATION INSTRUCTIONS

SenoFix® FT



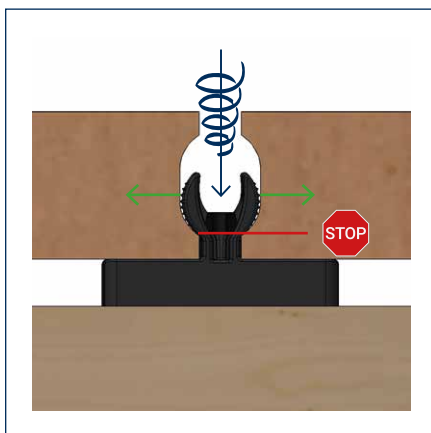
01

- Slide the SenoFix® FT under the plank
- Press the connector against the board
- Screw in only far enough so that it engages with the substructure (the connector must not spread yet)



02

- Repeat the procedure described in step 1 for the next floorboards (covering approximately one meter in width per pass)
- The connectors installed so far are only seated in the subframe (the connectors have not yet expanded)

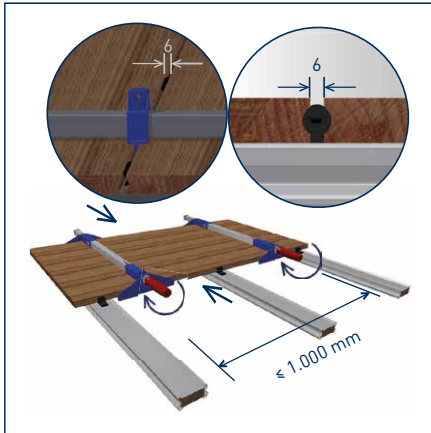


03

- Finally, tighten all screws into the connectors until they reach the specified stop (use a depth stop), ensuring uniform expansion of all connectors
- **CAUTION:** If a clamp is required, use the 7-mm joint spacer!

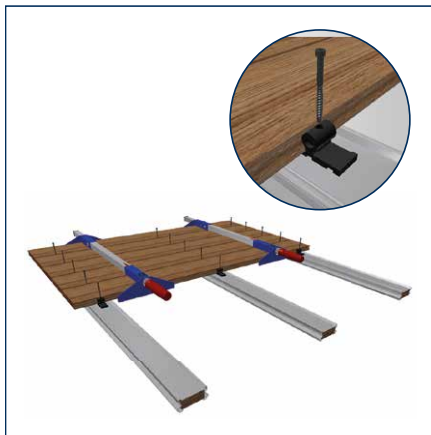
INSTALLATION INSTRUCTIONS

SenoFix® II SX



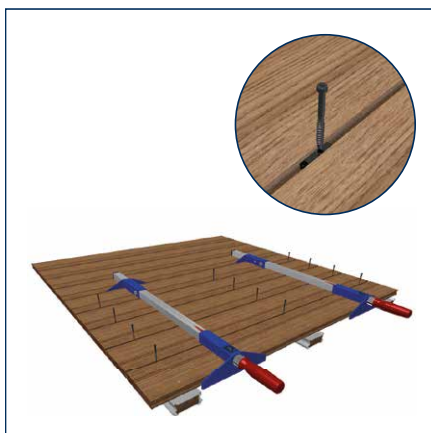
01

- The connectors, along with the decking boards, are pre-tensioned using clamps and 6-mm joint spacers



02

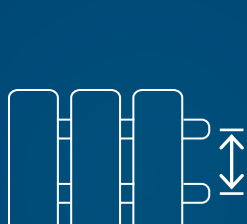
- The screw of the last connector is tightened only far enough to engage with the subframe



03

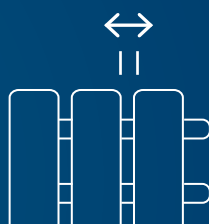
- Now screw all remaining screws into the connectors (flush with the top edge of the connector)

WHAT YOU SHOULD PAY PARTICULAR ATTENTION TO.



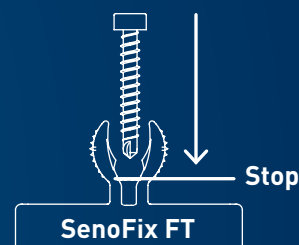
Centre-to-centre distance

Observe the centre-to-centre distance of the substructure as specified in the installation instructions



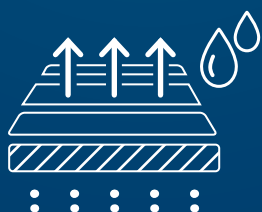
Joint width

Ensure the joint width is 6 or 7 mm



Fastening screw

Do not screw the fastening screws in too deeply



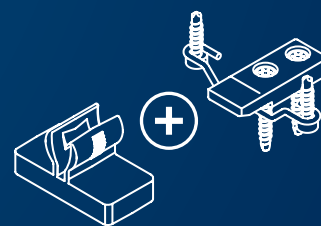
Moisture

Take wood moisture content into account during installation and ensure adequate rear ventilation



Longitudinal joint

Connect the planks end-to-end using two connectors on two subframes



Product Selection

Use compatible components that are designed to work together



ORDER OVERVIEW

SenoFix® + accessories with item number

SenoFix®

montagepack		ATTENTION
Type	PU	
SenoFix® FT	100	Only available through specialized wood traders - price on request
SenoFix® II SX	100	Only available through specialized wood traders - price on request

TerrassenFix® Depth Limiter TTB

SIHGA® minimontagepack		Type Depth Limiter
Art. No.	PU	Type
34992	1	TTB



SIHGAFIX® TX 20 - 77 mm

SIHGA® minimontagepack		Type SIHGAFIX®
Art. No.	PU	Type
43612	5	TX 20 - 77 mm



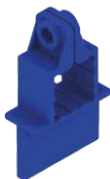
TerrassenFix® Clamp III

SIHGA® montagepack		Type TerrassenFix®
Art. No.	PU	Type
35036	1	Clamp III



Joint Spacer Clamp FAZ

SIHGA® montagepack		Joint Spacer Clamp	
Art. No.	PU	Type	Joint Widths [mm]
40646	5	FAZ	6,0
40656	5	7	7,0



ORDER OVERVIEW

Other products for concealed fixing

GleitFix® GF

SIHGA® objektpack®		Dimension GleitFix® GF	Plank Thickness mind.	Average Quantity / m ² *
Art. No.	PU	Type	[mm]	Pieces
34419	150	GF 17	19	16
34449	150	GF 22	24	16
34479	150	GF 28	30	16
34519	150	GF 17 CS	19	16
34549	150	GF 22 CS	24	16
34579	150	GF 28 CS	30	16

* assuming: Axial distance substructure = 0.5 m and plank width = 12 cm
calculation of quantity = m² : distance substructure [m] : (width terrace plank + joint [m])



GleitFix® AE

SIHGA® montagepack		Dimension GleitFix® AE	Plank Thickness min.
Art. No.	PU	Type	[mm]
34626	24	AE 17	19
34656	24	AE 22	24
34686	24	AE 28	30
34726	24	AE 17 CS	19
34756	24	AE 22 CS	24
34786	24	AE 28 CS	30



DielenFix® DF

SIHGA® objektpack®		Dimension DielenFix® DF	Plank Thickness mind.	Average Quantity/m ² *
Art. No.	PU	Type	[mm]	Stück
34119	300	DF 17	19	33
34129	300	DF 22	24	33
34139	300	DF 28	30	33

* assuming: Axial distance substructure = 0.5 m and plank width = 12 cm
calculation quantity = m² : distance substructure [m] : (width terrace plank [m] + joint [m]) x 2



ORDER OVERVIEW

JustiFix® II JK H

SIHGA® montagepack		Dimension JustiFix® II JK	Adjustment range		Support surface Diameter
Art. No.	PU	Type	from [mm]	to [mm]	[mm]
33336	5	50 H	30	50	210
33366	5	90 H	50	90	210



JustiFix® II JK Alu

SIHGA® montagepack		Dimension JustiFix® II JK Alu	Adjustment range		Support surface Diameter
Art. No.	PU	Type	from [mm]	to [mm]	[mm]
33436	5	50	30	50	210
33446	5	90	50	90	210



JustiFix® Adapter JA

SIHGA® montagepack		Adapter JA
Art. No.	PU	Amount
33386	8	JA 35
33396	8	JA 70



Orakelix®

SIHGA® Package		Length	Orakelix® Weight
Art. No.	PU	[cm]	[kg]
55536	1	152	3,3



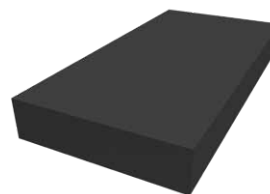
JustiFix® II JM

SIHGA® montagepack		Dimension JustiFix® II JM	Adjustment range		Dimensions/ Base plate	
Art. No.	PU	Type	from [mm]	to [mm]	Length [mm]	Width [mm]
40846	40	JM 40	25	40	100	74
40866	40	JM 60	25	60	100	74
40886	40	JM 80	25	80	100	74



JustiFix® J

SIHGA® montagepack		Dimension JustiFix® J	Dimension L x B x H
Art. No.	PU	Type	[mm]
41206	90	J 3H	80 x 40 x 3
41216	60	J 5H	80 x 40 x 5
41226	30	J 10H	80 x 40 x 10



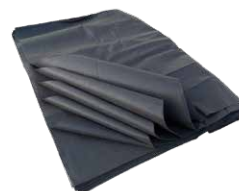
JustiFix® K

SIHGA® montagepack		Dimension L x B x H
Art. No.	PU	[mm]
41256	20	250 x 250 x 2



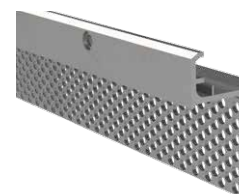
JustiFix® Vlies JV

SIHGA® montagepack		Dimension JustiFix® Vlies JV	Grammage	Dimension Width x Length
Art. No.	PU	Type	[g/m²]	[m]
34956	1	JV	50	1,6 x 10



TerrassenFix® Air

SIHGA® Package		Length	Dimension	
Art. No.	PU	[mm]	Width	Height
52064	5	4400	36	83,0



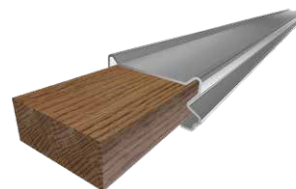
TerrassenFix Aqua®

SIHGA® objektpack®		Type
Art. No.	PU	Dimensionen
40459	10	Aqua 140 x 1000 x 21
40472	10	Aqua 140 x 4000 x 21



SymbioFix® SFT

SIHGA® objektpack		Type	SymbioFix® Length
Art. No.	PU		[mm]
32679	15	SFT 1100	1100



TefaFix® T

SIHGA® Package		Type	TefaFix® T	
Art. No.	PU		Surface	Length
52023	15	1100	SC 9	1100
52022	10	4400	SC 9	4400
52112	10	4400	bright	4400



Fig.: SC 9



ORDER OVERVIEW

Products for visible fixing

KompeFix® II KF

SIHGA® montagepack		Dimension KompeFix®	Dimension [mm]		
Art. No.	PU	Type	Width	Hight	Length
41006	8 x 4,5 m	II KF	21	8	4500



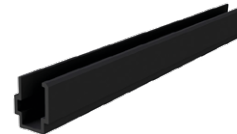
TefaFlex® T

SIHGA® montagepack		Length	TefaFlex® T	
Art. No.	PU	[mm]	Width [mm]	Hight [mm]
52036	300	53,2	49	8,5



TefaBind®

SIHGA® montagepack		Length	TefaBind®	
Art. No.	PU	[mm]	Width [mm]	Hight [mm]
52056	25	250	22,0	26,0



L-GoFix® MS

SIHGA® montagepack		Dimension L-GoFix® MS	Installation Part AD
Art. No.	PU	d1 x L [mm]	[mm]
24316	200	5,0 x 45*	18
24326	200	5,0 x 50*	20
24336	200	5,0 x 60*	24
24346	200	5,0 x 70*	28
24356	200	5,0 x 80*	32
24366	200	5,0 x 90*	36
24376	200	5,0 x 100*	40
24406	100	6,0 x 70	28
24416	100	6,0 x 80	32
24426	100	6,0 x 90	36
24436	100	6,0 x 100	40
24446	100	6,0 x 120	50
24456	100	6,0 x 140	70
24466	100	6,0 x 160	90

L-GoFix® MS A2

SIHGA® montagepack		Dimension L-GoFix® MS A2	Installation Part AD
Art. No.	PU	d1 x L [mm]	[mm]
22226	400	4,5 x 40	16
22236	400	4,5 x 45	18
22246	400	4,5 x 50	20
22266	400	4,5 x 60	24
22276	300	4,5 x 70	28
22316	200	5,0 x 45	18
22326	200	5,0 x 50	20
22336	200	5,0 x 60	24
22346	200	5,0 x 70	28
22356	200	5,0 x 80	32
22366	200	5,0 x 90	36
22376	200	5,0 x 100	40

* also available with SC 9 coating



SC 9



TeFix®

SIHGA® montagepack		Dimension TeFix®	Installation Part AD [max]
Art. No.	PU	d1 x L	[mm]
54316	200	5,0 x 45*	18
54326	200	5,0 x 50*	24
54336	200	5,0 x 60*	27
54346	200	5,0 x 70*	30
54356	200	5,0 x 80*	34
54366	200	5,0 x 90*	37
54376	200	5,0 x 100*	40
54406	100	6,0 x 70	30
54416	100	6,0 x 80	34
54426	100	6,0 x 90	37
54436	100	6,0 x 100	40
54446	100	6,0 x 120	52

* also available with SC 9 coating



Alu-TeFix®

SIHGA® montagepack		Dimension Alu-TeFix®	Add-on Part up to AD	Substructure TefaFix®T/F
Art. No.	PU	d1 x L	[mm]	
54016	200	5,0 x 51	33	ja
54026	200	5,0 x 61	43	ja

SIHGA® montagepack		Dimension Alu-TeFix® A2	Add-on Part up to AD	Substructure TefaFix®T/F Alu 2-3 mm	
Art. No.	PU	d1 x L	[mm]		
54066	200	5,0 x 51	33	ja	ja
54076	200	5,0 x 61	43	ja	ja

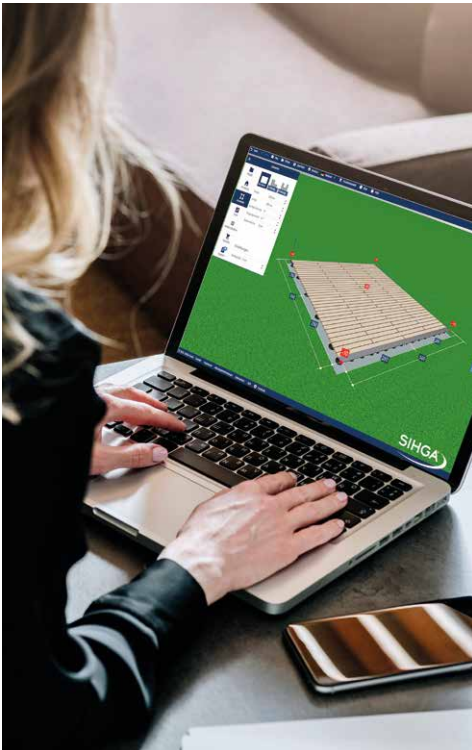


L-BohrFix® MB A4

SIHGA® montagepack		Dimension L-BohrFix® MB A4	Installation Part AD
Art. No.	PU	d1 x L	[mm]
37766	200	5,5 x 60	24
37776	200	5,5 x 70	28
37786	200	5,5 x 80	32



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CONTACT

SIHGA® GmbH

Gewerbepark Kleinreith 4
4694 Ohlsdorf near Gmunden
Austria

phone: +43 7612 74370 0
e-mail: info@sihga.com



Send e-mail

Dimensioning service

e-mail: bemessung@sihga.com



Technical support

e-mail: support@sihga.com





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SIHGA®

SIHGA® GmbH

Gewerbepark Kleinreith 4 | 4694 Ohlsdorf near Gmunden | Austria | Tel.: +43 7612 74370 0 | info@sihga.com

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