



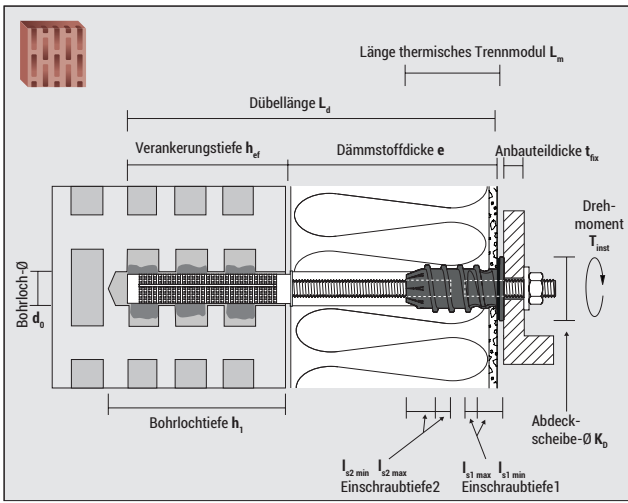
2x Siebhülse SH 20x130 (nur für Lochsteine benötigt)

1x Mischdüsenverlängerung MDV, 200 mm (9MDV)

1x Bit Innensechskant, Größe 6

1x Verbundmörtel ResiFIX wird für die Installation benötigt
(siehe Seite 2)

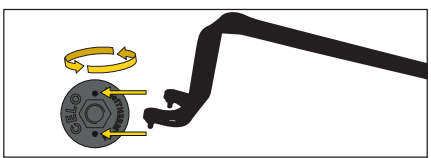
Montagedaten:



		 Installation in Beton	 Installation in Porenbeton/Vollstein	 Installation in Lochstein
Ankerlänge	l_A [mm]	295 ¹⁾	295 ¹⁾	295 ¹⁾
Dämmstoffdicke (inkl. Putz)	e [mm]	60 - max. 220	60 - max. 190	60 - max. 160
Länge thermisches Trennmodul (bis Unterkannte Abdeckscheibe)	l_m [mm]	60	60	60
Durchmesser Abdeckscheibe	K_D [mm]	42	42	42
Gewindestange	[mm]	M12x260 ¹⁾	M12x260 ¹⁾	M12x260 ¹⁾
Einschraubtiefe M12 Gewindestange	$l_{\geq \text{min-max}}$ [mm]	24-27	24-27	24-27
Bohrlochdurchmesser	d_b [mm]	14	14	20
Bohrlochtiefe	$h_1 \geq$ [mm]	80 + e	110 + e	140 + e
Verankerungstiefe	h_{ef} [mm]	70	100	130
Siebhülse SH		–	–	20-130
Anschlussgewinde	[mm]	M12 ³⁾	M12 ³⁾	M12 ³⁾
Einschraubtiefe des M12 Gewindestifts	$l_{\geq \text{min-max}}$ [mm]	30-34	30-34	30-34
Anbauteildicke	$t_{a,s}$ [mm]	24 ²⁾	24 ²⁾	24 ²⁾
Durchgangsloch im anzuschließenden Anbauteil	$d_{\leq}$ [mm]	14	14	14
Drehmoment	$T_{max} \leq$ [Nm]	19 ⁴⁾	19 ⁴⁾	19 ⁴⁾

⁴⁾ Das Drehmoment gilt für das thermische Trennmodul. Evtl. abweichendes max. Installationsdrehmoment in der ETA-Zulassung des verwendeten ResiFIX Injektionssystems beachten.

Montageanleitung in Beton/Vollstein:



- b) Das thermische Trennmodul darf max. 3 mm (das entspricht ca. 1 ½ Umdrehungen) herausgeschraubt werden.
Dabei z.B. den Zweilochmutterndrehers 25x3 verwenden (Art.-Nr. 15523AMT)
Anm.: Hierbei empfehlen wir die Abdichtung des Spalts mittels einem geeigneten Dichtstoff (z.B. StickFX).

Zubehör:



Zweilochmutterdreher, DIN 3116C zur Justierung von ResiTHERM® 12

Year	M12 (Male 16 and over)	M10 (Male 10 and over)
1990	65	55
1995	70	60
2000	75	65
2005	80	70
2010	85	75



Alternativ, falls M10 Anschlussgewinde benötigt wird

Gewindestiftadapter M12/M10, nichtrostender Stahl A4 inkl M10 Mutter und Unterlegscheibe

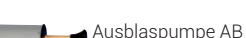


Vynylester VYSF (styrolfrei)

Vinylester VY ECO SF [styrolfrei]

PY 345 SF

Polyester PYSF [styrolfrei]

Reinhold

Typ	Art.-Nr.	Länge [mm]	Passend für Loch-Ø [mm]	Passend für Ankerstange	Anschlussge- winde	 [Stück]
RBS Ø16 für Beton u. Mauerwerk	9M16RBK	200	14	M12	M6	5
Verlängerung für RBS Ø20	MRBKH	–	alle	alle	M6	5
Handgriff für RBS Ø20	MRBKV	140	alle	alle	M6	5
RBK Ø20 für Mauerwerk*	9PLRBK	300	bis 20	bis M16	–	5
AB	BOP	300	8	–	–	1

^{*)} nicht Bestandteil der ETA-Bewertung/ ETA-Zulassung der ResiFIX Injektionsmörtel

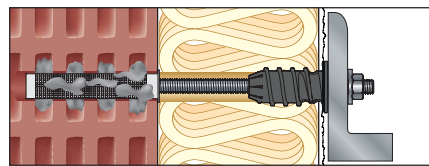


Typ	Art.-Nr.	Außen-Ø [mm]	Länge [mm]	 [Stück]
MD	9MRMEA	–	215	20
MDV 10	9MDV	10	200	10



Typ	Art.-Nr.	passend für ResiFIX Typ	 [Stück]
APP 300	300APP	300 / 165 / 280	1
APP 380	380APP	410	1
APVM	345APVM	345 / 300 / 280 / 165	1

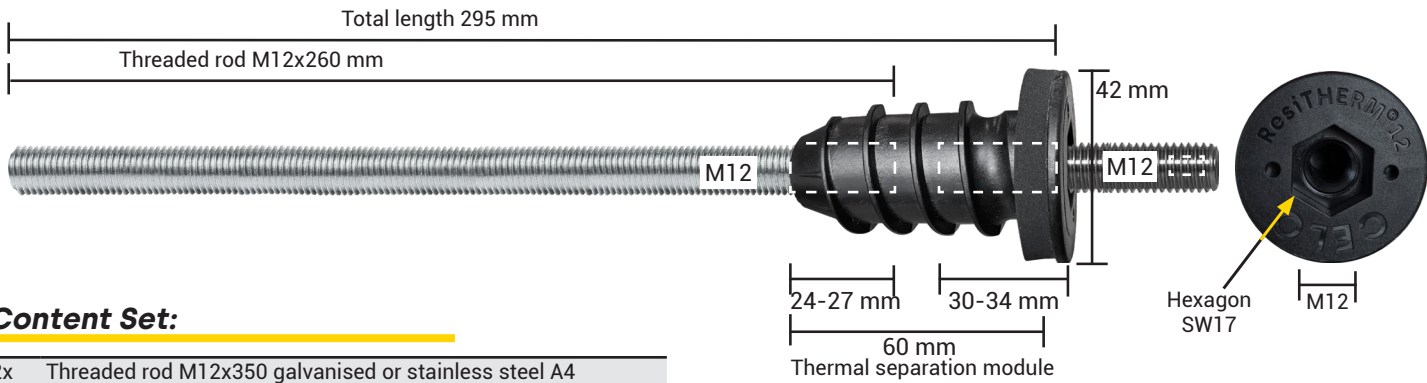
Montageanleitung in Mauerwerk (Lochstein):



- Dabei z.B. den Zweilochmutterndrehers 25x3 verwenden, um das Trennmodul max. 1 ½ Umdrehungen herauszudrehen (Art.-Nr. 155253AMT).
Anm.: Hierbei empfehlen wir die Abdichtung des Spalts mittels einem geeigneten Dichtstoff (z.B. StickFX).



Installation instruction ResiTHERM® 12



Content Set:

2x	Threaded rod M12x350 galvanised or stainless steel A4
2x	Thermal separation module 60 mm with EPDM sealing ring
2x	Threaded stud M12x70 mm, DIN 913, stainless steel A4
2x	Washer M12 DIN 125, stainless steel A4
2x	Hexagon nut M12 DIN 934, stainless steel A4

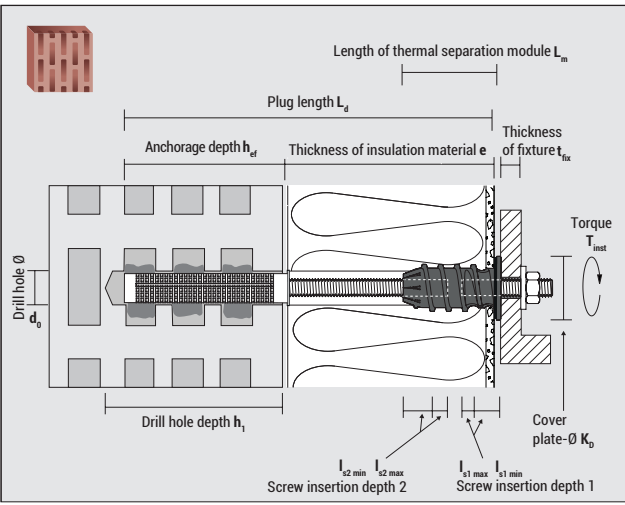
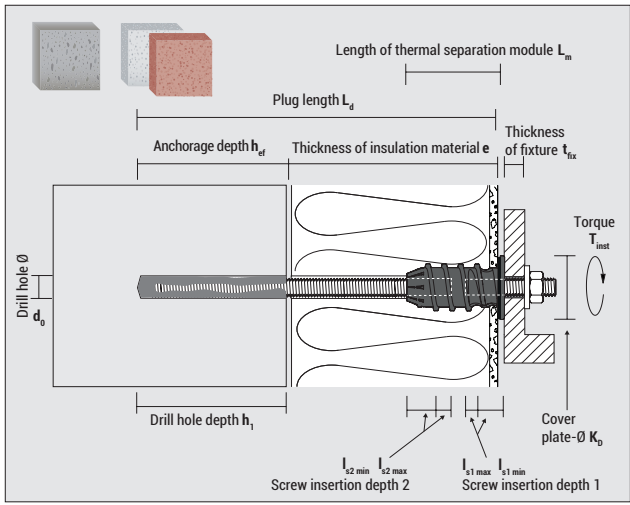
2x Plastic sleeve SH 20x130 (only needed for perforated brick)

1x Mixing nozzle extension MDV, 200 mm (9MDV)

1x Bit hexagon socket, size 6

1x Injection mortar ResiFIX is needed for installation (see page 2)

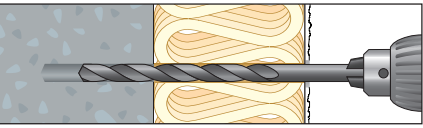
Installation parameters:



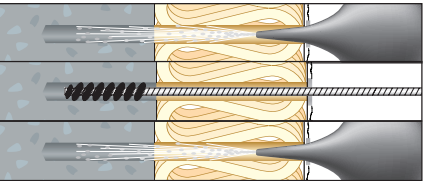
	Installation in concrete	Installation in aerated concrete/solid brick	Installation in perforated brick
Anchor length	L _{af} [mm]	295 ¹⁾	295 ¹⁾
Thickness of insulation material (incl. plaster)	e [mm]	60 - max. 220	60 - max. 190
Length of thermal separation module (to lower edge of cover plate)	L _{th} [mm]	60	60
Diameter cover plate	K ₀ [mm]	42	42
Threaded rod	[mm]	M12x260 ¹⁾	M12x260 ¹⁾
Insertion depth of M12 threaded stud	l _{st} min-max [mm]	24-27	24-27
Drill hole diameter	d _h [mm]	14	14
Drill hole depth	h _i ≥ [mm]	80 + e	110 + e
Anchorage depth	h _{af} [mm]	70	100
Plastic sleeve SH		–	20-130
Connecting thread	[mm]	M12 ²⁾	M12 ²⁾
Insertion depth of M12 threaded stud	l _{st} min-max [mm]	30-34	30-34
Thickness of fixture	t _{fm} ≤ [mm]	24 ³⁾	24 ³⁾
Ø of clearance hole in fixture	d _f ≤ [mm]	14	14
Torque	T _{inst} ≤ [Nm]	19 ⁴⁾	19 ⁴⁾

¹⁾ Threaded rod M12 has to be cut as needed.
For further technical values, see ETA-assessment/ETA-approval of the ResiFIX injection system used.
²⁾ When using the threaded stud with length L=70 mm, completely screwed in. Otherwise, a longer threaded stud or a longer metric screw can be used.
³⁾ Alternative, if a M10 connecting thread is needed: Threaded stud adapter M12/M10, length 70 mm, stainless steel A4, Art-No X70M12M10ECT4.
⁴⁾ The torque applies to the thermal separation module. Note any different max. installation torque in the ETA approval of used injection system ResiFIX has to be observed.

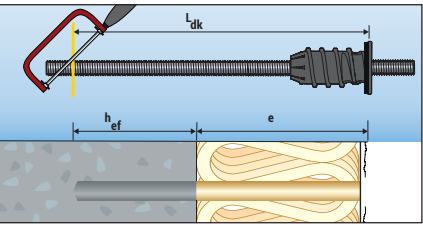
Mounting in concrete/solid brick:



1. Drill a hole:
Observe the drilling method of the approval/assessment of the ResiFIX injection mortar.
Concrete/solid brick: hammer drilling; aerated concrete: Rotary drilling - without impact
Drill hole diameter = 14 mm
Concrete: Drill hole depth ≥ 80 mm + insulation thickness (incl. plaster)
Solid brick: Drill hole depth ≥ 110 mm + insulation thickness (incl. plaster)



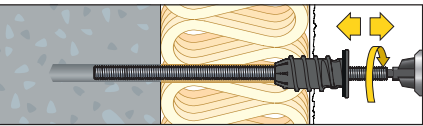
2. Clean the drill hole:
The drill hole must be cleaned properly; see approval/assessment of the ResiFIX injection system:
4x blow - 4x brush - 4x blow



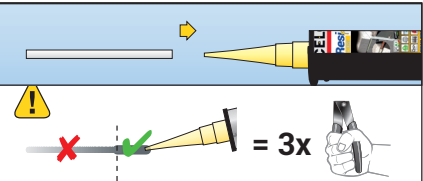
3. Cut the ResiTHERM® 12 to length:
The pre-assembled threaded rod M12 is already completely screwed into the thermal separation module.
Correct length L_{dk} from the tip of the threaded rod to the lower edge of the cover plate of the thermal separation module (see table):

Correct length L _{dk} = Anchorage depth h _{af} + insulation thickness e	Anchoring in concrete	Anchoring in aerated concrete/solid brick
L _{dk} = h _{af} + e	L _{dk} = 70 mm + e	L _{dk} = 100 mm + e

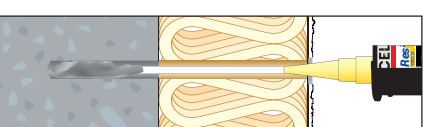
After determining the correct length, cut the threaded rod M12 to length with a metal saw or similar.



4. **Note:** In seldom cases, you may not be able to get through the plaster properly with the thermal separation module (if the plaster is more than 8 mm thick or very hard). Therefore, we recommend the following test: Screw the thermal separation module 2 thread turns through the plaster and out again.
If you notice that there is abrasion on the plastic part, drill out the hole in the plaster to approx. 26 mm or „ream“ it with the drill.

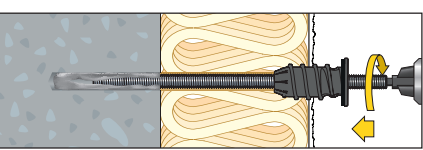


5. Attach the mixing nozzle extension MDV to the mixing nozzle MD.
Squeeze out the injection mortar until the mortar has a uniform grey mixing colour - discard the pre-run of at least 3 pumps.



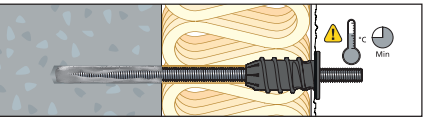
Drill hole depth h _i [mm]	ResiFIX 165/280/300 ml Number of pumps	ResiFIX 345 ml Number of pumps	ResiFIX 410 ml Number of pumps
Concrete: 80	5	5	4-5
Solid brick/aerated concrete: 110	6	6	5-6

Important: Follow the installation instructions and processing time of the ResiFIX injection mortar used in accordance with the approval/assessment.



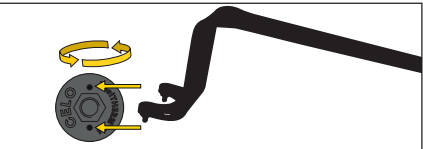
7. Insert the hexagon bit (included in the set) into the M12 threaded stud and screw in the ResiTHERM® 12 using a cordless screwdriver until the seal is pressed firmly against the plaster. A standard cordless screwdriver is sufficient for this.

Note: The thermal separation module drills itself through the insulation. The foamed EPDM sealing ring ensures optimum sealing and prevents the entry of driving rain into the insulation (additional sealing with e.g. acrylic is not necessary, unless the plaster is very rough). For details on driving rain tightness, see ETA.



8. Observe the curing time of the injection system, see cartridge label of the ResiFIX injection mortar.
9. Afterwards, the attachment can be mounted (max. torque T_{inst} = 19 Nm).
Note: Observe an eventually varying installation torque in the ETA approval of the used injection system ResiFIX.

Note: The screw insertion depth of the M12 threaded stud in the ResiTHERM® 12 is min. 30 mm, max. 34 mm. This means that it may be unscrewed by max. 4 mm - this corresponds to approx. 2 turns.



10. If the ResiTHERM® 12 needs to be adjusted due to an unevenness in the wall or similar:
a) Place distance washers under the fixture (e.g. Art-No 129021AS, polyamide washers, DIN 9021, 37x13x3 mm). Or:
b) The thermal separation module may be unscrewed by max. 3 mm (equivalent to approx. 1 ½ turns).
Use the CELO two-hole nut driver 25x3 for example (Art-No 155253AMT).
Note: We recommend in this case to seal the opening gap with a suitable sealant (e.g. StickFX).

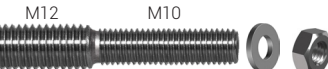
Accessories:



If the thermal separation module has to be unscrewed (or screwed in) due to an unevenness in the wall or similar

Two-hole nut driver, DIN 3116C for adjusting ResiTHERM® 12

Type	Art-No	Length L [mm]	Width B [mm]	Sheet thickness t _m [mm]	Suitable for	[pc]	[pcs]
Two-hole nut driver	155253AMT	155	25	3	ResiTHERM® 16	1	15



Alternative, if a M10 connecting thread is needed

Threaded stud adapter M12/M10, stainless steel A4 incl. M10 nut and washer

Type	Art-No	Length L [mm]	Suitable for	[pc]	[pcs]
Threaded sud adapter	X70M12M10ECT4	70	ResiTHERM® 12	4	60



Vinylester VVSF (styrene free)

Type	Art-No	Content [ml]	Mixing nozzles included [pcs]	Shelf life [Months]	[ETA]	[pcs]
VY 300 SF	300VSF	280	2	18	●	12
VY 345 SF	345VSF	345	2	18	●	12
VY 410 SF	410VVSF	410	1	18	●	12



Vinylester VY ECO SF (styrene free)

Type	Art-No	Content [ml]	Mixing nozzles included [pcs]	Shelf life [Months]	[ETA]	[pcs]
VY ECO 300 SF	300VYECOSF	300	2	18	●	12



Polyester PYSF (styrene free)

Type	Art-No	Content [ml]	Mixing nozzles included [pcs]	Shelf life [Months]	[ETA]	[pcs]
PY 165 SF	165PSF	165	2	18	●	1/12
PY 300 SF	300PSF	300	1	18	●	12
PY 345 SF	345PSF	345	1	18	●	12
PY 410 SF	410PYSF	410	1	18	●	12



Cleaning brush RBS



Extension



Handle



Cleaning brush RBK



Blow our pump AB

Type	Art-No	Length [mm]	Suitable for drill hole Ø [mm]	Suitable for anchor rod	Connecting thread	[pcs]
RBS Ø16 for concrete and masonry	9M16RBK	200	14	M12	M6	5
Extension for RBS Ø20	MRBKX	–	all	all	M6	5
Handle for RBS Ø20	MRBKV	140	all	all	M6	5
RBK Ø20 for masonry*	9PLRBK	300	up to 20	up to M16	–	5
Blow out pump AB	BOP	300	8	–	–	1

* not part of the ETA assessments / ETA approvals of the ResiFIX injection mortars



Mixing nozzle MD
Mixing nozzle extension MDV

Type	Art-No	Outer-Ø [mm]	Length [mm]	[pcs]
MD	9MRMEA	–	215	20
MDV 10	9MDV	10	200	10



APP300



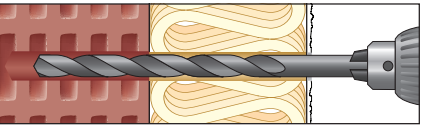
APP380



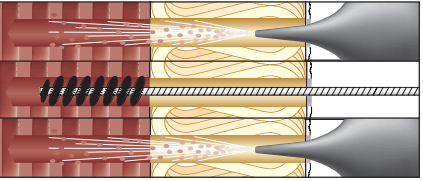
APVM

Type	Art-No	suitable for ResiFIX Type	[pcs]
APP 300	300APP	300 / 165 / 280	1
APP 380	380APP	410	1
APVM	345APVM	345 / 300 / 280 / 165	1

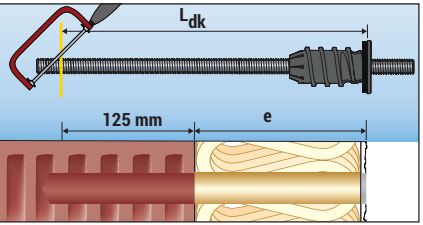
Mounting in masonry [perforated brick]



1. Drill a hole:
Observe the drilling method of the approval/assessment of the ResiFIX injection mortar.
Perforated bricks: Rotary drilling - without impact
Drill hole diameter = 20 mm
Drill hole depth ≥ 140 mm + insulation thickness (incl. plaster)

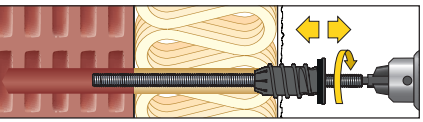


2. Clean the drill hole:
The drill hole must be cleaned properly; see approval/assessment of the ResiFIX injection system:
2x blow - 2x brush - 2x blow

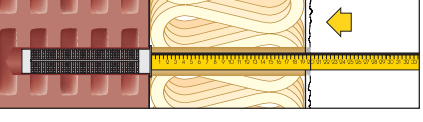


3. Cut the ResiTHERM® 12 to length:
The pre-assembled threaded rod M12 is already completely screwed into the thermal separation module.
Correct length L_{dk} from the tip of the threaded rod to the lower edge of the cover plate of the thermal separation module:
Anchorage depth in plastic sleeve (125 mm) + insulation thickness e (incl. plaster)

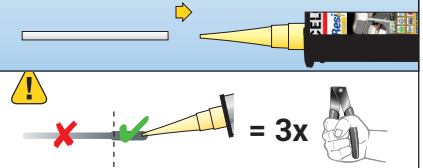
After determining the correct length, cut the threaded rod M12 to length with a metal saw or similar.



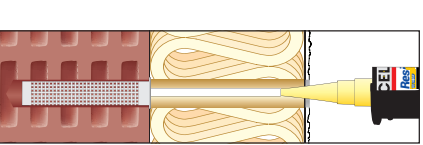
4. Enlarge the opening in the plaster for the collar of the plastic sleeve to 26 mm. To do this:
- Screw the thermal separation module only approx. 2 thread turns through the plaster using a cordless screwdriver and the bit included in the set. Then screw it out again.
Note: If the plaster is very thick and hard, use a Ø 26 mm drill bit or „ream“ the hole in the plaster to approx. 26 mm with the drill.



5. Push the plastic sleeve into the drill hole with the help of a folding ruler or similar. Then remove the folding ruler or similar from the drill hole.
Note: This is an ideal way to ensure that the sleeve SH 20x130 is correctly inserted in the drill hole.

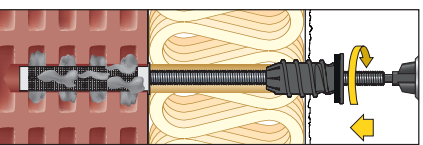


6. Attach the mixing nozzle extension MDV to the mixing nozzle MD.
Squeeze out the injection mortar until the mortar has a uniform grey mixing colour - discard the pre-run of at least 3 full strokes.



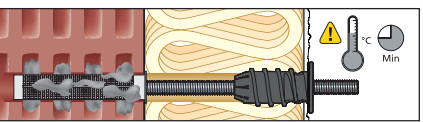
ResiFIX 165/280/300 ml	ResiFIX 345 ml	ResiFIX 410 ml
13 pumps = 38 mm Scale shares	12 pumps = 34 mm Scale shares	13 pumps = 24 mm Scale shares

Important: Follow the installation instructions and processing time of the ResiFIX injection mortar. The necessary information is on the label, for further information see approval/ assessment.

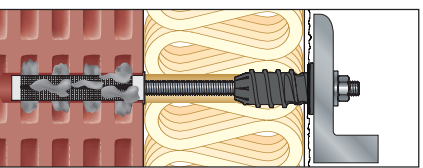


8. Insert the hexagon bit (included in the set) into the M12 threaded stud and screw in the ResiTHERM® 12 using a cordless screwdriver until the sealing ring is pressed firmly against the plaster. A standard cordless screwdriver is sufficient for this.

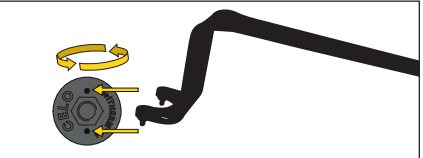
Note: The thermal separation module drills itself through the insulation. The foamed EPDM sealing ring ensures optimum sealing and prevents the entry of driving rain into the insulation (additional sealant material is not necessary, unless the plaster is very rough). For details on driving rain tightness, see ETA.



9. Observe the curing time of the injection mortar ResiFIX (see label)!



10. Afterwards, the attachment can be mounted (max. torque T_{inst} = 19 Nm).
Note: Observe an eventually varying installation torque in the ETA approval of the used injection system ResiFIX.
Note: The screw insertion depth of the M12 threaded stud in the ResiTHERM® 12 is min. 30 mm, max. 34 mm. This means that it may be unscrewed by max. 4 mm - this corresponds to approx. 2 turns.



11. If the ResiTHERM® 12 needs to be adjusted due to an unevenness in the wall or similar:
a) Place distance washers under the fixture (e.g. Art-No 129021AS, polyamide washers, DIN 9021, 37x13x3 mm). Or:
b) The thermal separation module may be unscrewed by max. 3 mm (equivalent to approx. 1 ½ turns).
Use the CELO two-hole nut driver 25x3 for example (Art-No 155253AMT).
Note: We recommend in this case to seal the opening gap with a suitable sealant (e.g. StickFX).