



screw anchors

Designed for use with Siniat's steel wall framing and ceiling frame systems, the Siniat screw anchor range has been purpose made to provide a complete framing solution from one manufacturer with full certification

The Siniat **screw anchor** range is an integral part of achieving the full Siniat system performance, as such it is essential for the Siniat System Warranty and engineering certification.

application

The Siniat screw anchor range is compatible with the following substrates:

- Cracked and uncracked concrete for wall, floor and overhead applications.
- Autoclaved aerated concrete for walls.
- Solid brick for walls.

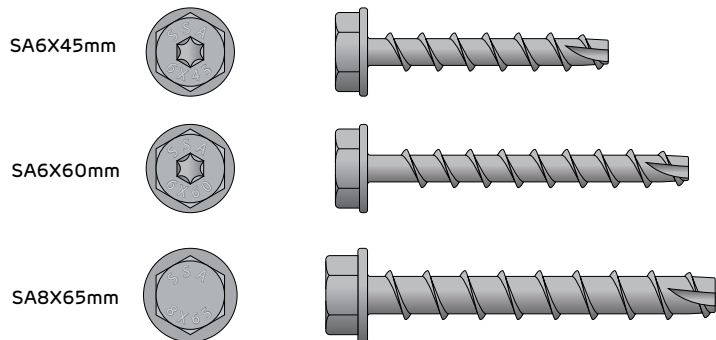
suitable for use in the following loads:

- Static loads
- Quasi-static load
- Seismic C1 load certified
- Fire resistance loads

For internal use and behind external cladding.
Not for use outside the building envelope.

key benefits

- part of the complete certified Siniat wall and ceiling system
- compatible with Siniat metal products
- minimal edge distance and anchor spacing required
- ETA certified and complies with AS 5216:2018 *Design of post-installed and cast-in fastenings in concrete*



product information

anchor dimensions

anchor	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)	40	55	60
maximum fixture thickness t_{fix} (mm)	5	5	5
threaded outer diameter d_t (mm)	7.85	7.85	10.3
core diameter d_k (mm)	5.85	5.85	7.85
shaft diameter d_s (mm)	6.15	6.15	8.45
shaft length (mm)	45	60	65

properties

anchor	sa6x45	sa8x65
	sa6x60	
head type	hex-head SW13	hex-head SW13
corrosion protection	8 μ m zinc coating	8 μ m zinc coating
nominal tensile strength f_{uk} (N/mm ²)	930	810
yield strength f_{yk} (N/mm ²)	745	695
stressed cross-section a_s (mm ²)	26.9	48.4

concrete thickness and anchor placement

anchor	sa6x45	sa6x60	sa8x65
minimum concrete thickness (mm)	80	100	100
minimum spacing S_{min} (mm)	35	35	50
minimum edge distance C_{min} (mm)	35	35	40

product information

static and quasi-static performance in concrete

		static / quasi-static loads					
design resistance in cracked concrete		pull-out (kN)			pull-out (kN)		
		sa6x45	sa6x60	sa8x65	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)		40	55	60	40	55	60
concrete grade (mpa)	20	1.39	3.33	6.00	3.77	8.33	12.67
	25	1.54	3.70	6.66	4.22	8.33	12.67
	32	1.76	4.22	7.59	4.77	8.33	12.67
	40	1.96	4.70	8.46	5.33	8.33	12.67
	50	2.19	5.27	9.48	5.96	8.33	12.67

1. No edge distance and spacing influence, or reinforcement affects.

2. Interaction of both Pull-out and Shear to be considered as per AS5216-2018 Equation 8.2.1(1) and 8.2.1(2)

seismic c1 performance in concrete

		seismic c1 loads					
design resistance in cracked concrete		pull-out (kN)			pull-out (kN)		
		sa6x45	sa6x60	sa8x65	sa6x45	sa6x60	sa8x65
nominal embedment depth h_{nom} (mm)		40	55	60	40	55	60
concrete grade (mpa)	20	1.39	2.22	6.00	1.60	1.67	3.97
	≥25	1.39	2.22	6.00	1.67	1.67	3.97

1. No edge distance and spacing influence, or reinforcement affects.

2. Interaction of both Pull-out and Shear to be considered as per AS5216-2018 Equation 8.2.1(1) and 8.2.1(2)

3. agap = 0.5

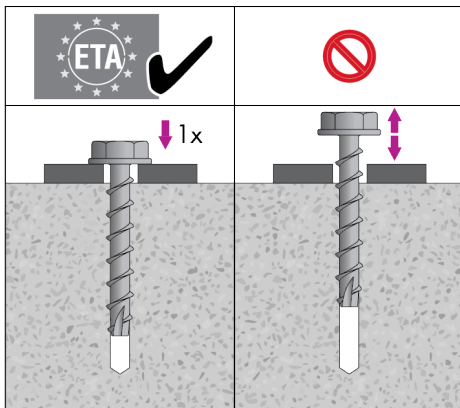
design service

Siniat provides a free design service for metal products backed up by the Siniat Warranty.

The detailed engineering designs for walls, ceilings and window or door openings take into consideration specific project needs and meet the building code requirements.

Siniat Screw Anchor Installation

SA6x45 and SA6x60

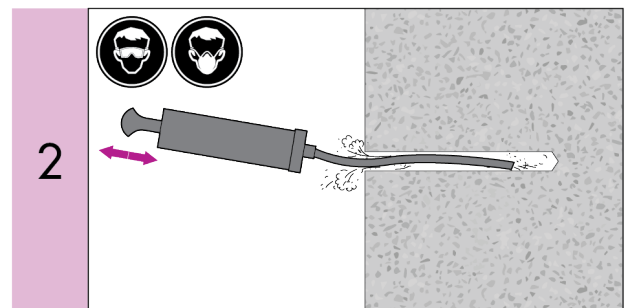
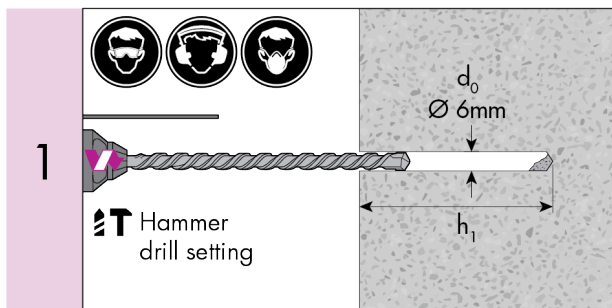


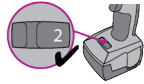
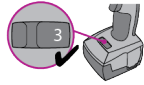
SA6x45	
h_1	50mm
h_{nom}	40mm
t_{fix}	5mm maximum
SA6x60	
h_1	65mm
h_{nom}	55mm
t_{fix}	5mm maximum

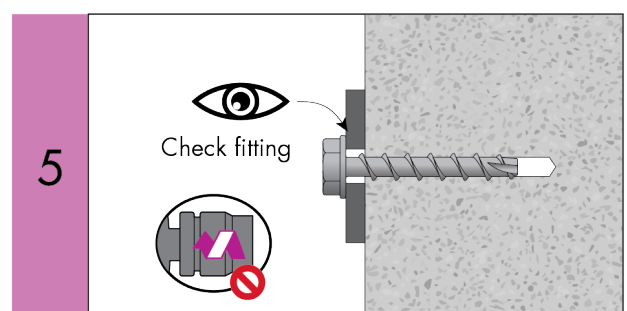
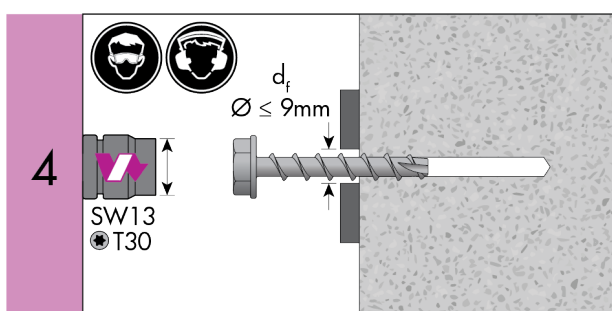
General Applications Section

SA6x45	
h_1	48mm
h_{nom}	40mm
t_{fix}	5mm maximum
SA6x60	
h_1	63mm
h_{nom}	55mm
t_{fix}	5mm maximum

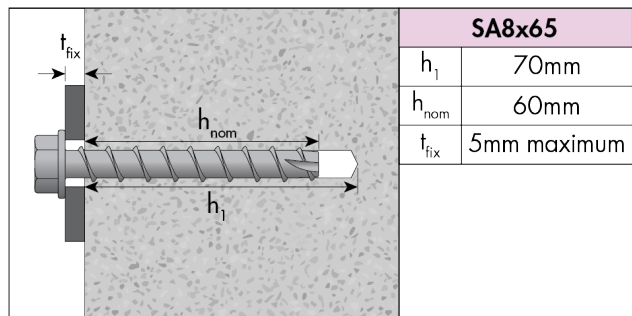
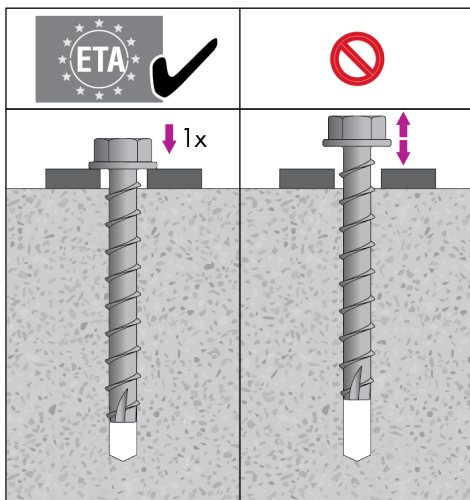
Overhead Applications Section



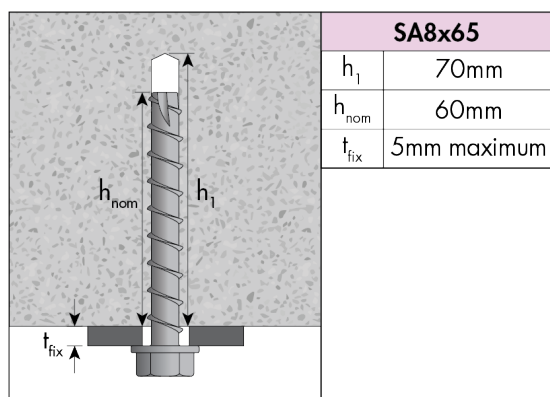
3	h_{nom}	Hilti Impact Driver / Wrench			Installation torque
		SID 2-A 1/2"	SIW 6AT-A22 1/2"	SIW 22T-A 1/2"	
	40mm	✓		✗	20 Nm
	55mm	✓		✗	25 Nm



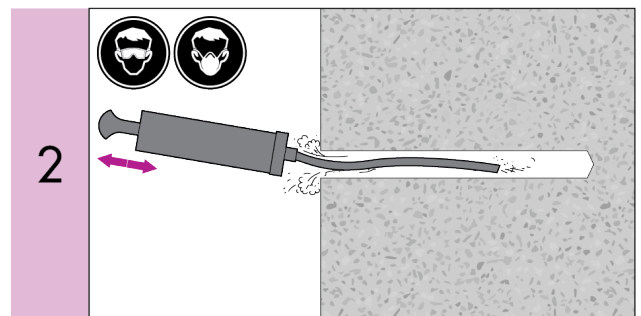
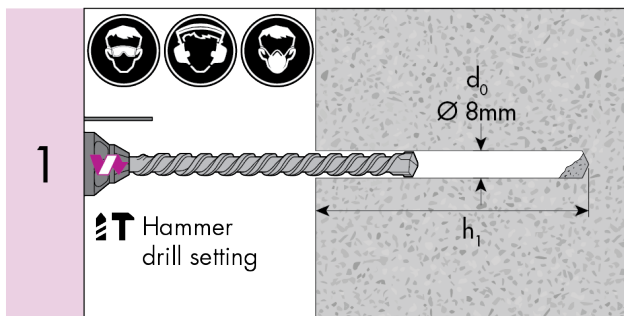
Siniat Screw Anchor Installation SA8x65



General Applications
Section

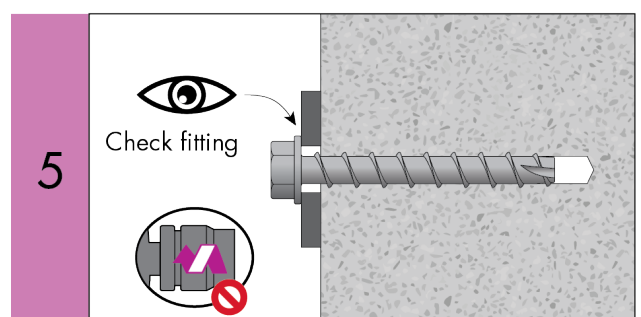
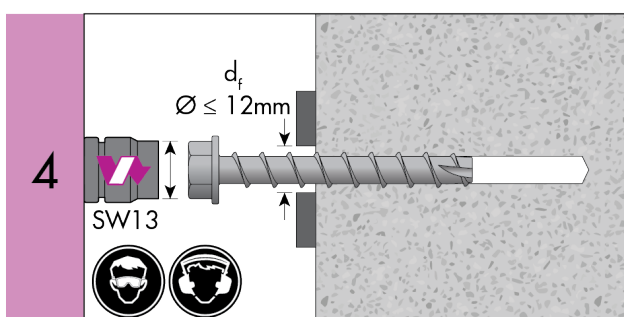


Overhead Applications
Section



3

h_{nom}	Hilti Impact Driver / Wrench				
	SIW 22-A 1/2"	SIW 6AT-A22 1/2"	SIW 22TA 1/2"	SIW 22TA 3/4"	SIW 9-A22 3/4"
60mm	✓	✓	✓	✓	✗





The following Siniat products have been independently certified by Global GreenTag to GreenRate Level A: **mastashield**, **fireshield**, **impactshield**, **soundshield**, **watershield**, **spanshield**, **multishield**, **curveshield**, **opal**, **trurock**, **trurock hd**, **shaftliner** and **intershield**. Compliance certificates are available on siniat.com.au.



Quality
ISO 9001

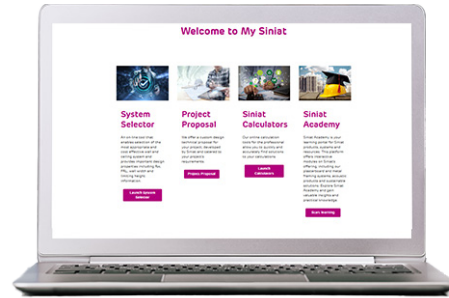


All Siniat products have been developed to meet the specific needs of the Australian market.

All Siniat Australian manufacturing sites comply with AS/NZ ISO 9001.



A wide range of plasterboard and metal products are available under the Opt2Act carbon neutral program. Opted-in products are certified carbon neutral by Climate Active. Visit www.siniat.com.au/opt2act to find out more.



Register for My Siniat!

My Siniat is an online technical hub where you can access everything you need for a compliant and successful project. It is your all-in-one digital platform for specifying, planning, and managing your Siniat wall and ceiling systems.

By registering for this platform, you will gain exclusive access to technical content, including System Selector, Project Proposal and the Siniat BIM and CAD Library.

You will also gain access to the **Siniat Academy** - a valuable training portal that provides a range of courses to learn more about our products and their applications. Courses are delivered in a fun and interactive way, and a certificate of completion is provided at the end of each module.

Register for My Siniat on siniat.com.au.

Disclaimer

Products manufactured and systems designed by Etex Australia Pty Ltd and branded Siniat, are produced in accordance with the Building Code of Australia and relevant Australian Standards. Information in this document is to be used as a guide only and is subject to project approval as many aspects of construction are not comprehensively covered. It is also the responsibility of the project to determine if Siniat's products and systems are suitable for the intended application. Etex Australia Pty Ltd will not be held responsible for any claims resulting from the installation of its products or other associated products not in accordance with the recommendations of the manufacturer's technical literature or relevant Australian Standards. Siniat technical information is regularly updated. To ensure this document is current with the latest information, visit siniat.com.au



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warranty

Siniat's products are guaranteed by a 10 Year Warranty. For details visit siniat.com.au

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