# SORMAT 🔁

# Through bolt S-KAH+ 12/40/20 A4

SORMAT CODE 9640005342



# Improved premium-quality A4 through bolts for fixing in non-cracked and cracked concrete

- Torque-controlled expansion anchors for pre-, push-through and distance installations.
- When torque is applied the expansion clip expands developing frictional grip with the drill hole walls.
- Anchor diameter and max. fixture thicknesses marked on the body. Anchor length letter code marked on the bolt head.
- M8, M10 and M12 have two different anchorage depths.
- The use of S-KA setting tool makes serial installation safer and quicker.
- Seismic performance category C1/C2 (h<sub>ef,std</sub>).
- A4 for indoor, outdoor and industrial use.

### PRODUCT OVERVIEW

Other codes Material Packages Weight GTIN-13

SNRO 1324136 / LVI 3253736 Stainless steel, A4 box (bag): 20 / outer carton: 100 / pallet: 5600 105.7 kg / 1000 6416031053429

### **APPLICATIONS**

- Steel structures
- Column base plates
- Seatings
- Barriers
- Cable racks
- Handrails
- Ladders
- Façade systems

## APPROVALS / CERTIFICATES



ETA-16/0934 + DoPs



## BASE MATERIALS

#### APPROVED FOR

- Cracked concrete
- Non-cracked concrete

#### ALSO SUITABLE FOR

Natural stone

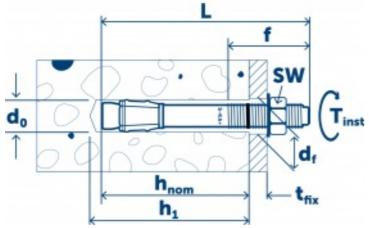


Seismic resistance (ETA-16/0934)

# Technical data

## INSTALLATION DETAILS

Size	M12
Length (L)	118
Thread (f)	68
Width across flats (SW)	19
Max. fixture thickness (T <sub>fix</sub> )	40/20



### INSTALLATION DETAILS

Hole in fixture (D <sub>f</sub> )	14
Drill hole diameter (d <sub>0</sub> ) Ø	12
Minimum drill hole depth	70/90
Drill hole depth (h <sub>1</sub> )	70/90
Nominal setting depth (H <sub>nom</sub> )	61/81
Effective setting depth (H <sub>ef</sub> )	50/70
Installation torque (T <sub>inst</sub> )	60

# Performance data

Base material All	Load type	Embedment depth (h <sub>nom</sub> )	Load direction	Load value
Non-cracked concrete C20/25	N <sub>Rec</sub>	61 mm	*	8.3 kN
Non-cracked concrete C20/25	V <sub>Rec</sub>	61 mm	), 	19.7 kN
Non-cracked concrete C20/25	N <sub>Rec</sub>	81 mm	*	11.9 kN
Non-cracked concrete C20/25	V <sub>Rec</sub>	81 mm	ž	19.7 kN
Cracked concrete C20/25	N <sub>Rec</sub>	61 mm	*	5.8 kN
Cracked concrete C20/25	V <sub>Rec</sub>	61 mm	ž	16.5 kN
Cracked concrete C20/25	N <sub>Rec</sub>	81 mm	*	7.6 kN
Cracked concrete C20/25	V <sub>Rec</sub>	81 mm	), , , , , , , , , , , , , , , , , , ,	19.7 kN

# Installation

