

# Through bolt S-KA 12/50 ZP

SORMAT CODE 9640001154

## Premium-quality 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 thickness marked on the body.
- The use of S-KA setting tool makes serial installation safer and quicker.
- ZP for dry indoor and temporary outdoor use.

## APPLICATIONS

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

## APPROVALS / CERTIFICATES



ETA-08/0173 + DoPs



0809-CPR-1078



Seismic resistance (ETA-08/0173)



TC 6236-21



Fire resistance (ETA-08/0173)

## PRODUCT OVERVIEW

|                    |  |
|--------------------|--|
| <b>Other codes</b> | / LVI 3253085                                    |
| <b>Material</b>    | Steel, zinc plated                               |
| <b>Packages</b>    | box (bag): 20 / outer carton: 100 / pallet: 5600 |
| <b>Weight</b>      | 127.3 kg / 1000                                  |

## BASE MATERIALS

### APPROVED FOR

- Cracked concrete
- Non-cracked concrete

### ALSO SUITABLE FOR

- Natural stone

Technical data

INSTALLATION DETAILS

Size  
Length (L)  
Thread (f)  
Width across flats (SW)  
Max. fixture thickness (T<sub>fix</sub> )



INSTALLATION DETAILS

|     |  |    |
|-----|--|----|
| M12 | Hole in fixture (D <sub>f</sub> )          | 14 |
| 148 | Drill hole diameter (d <sub>0</sub> ) ∅    | 12 |
| 98  | Minimum drill hole depth                   | 90 |
| 19  | Drill hole depth (h <sub>1</sub> )         | 90 |
| 50  | Nominal setting depth (H <sub>nom</sub> )  | 81 |
|     | Effective setting depth (H <sub>ef</sub> ) | 70 |
|     | Installation torque (T <sub>inst</sub> )   | 50 |

# Performance data

| Base material               | Load type | Embedment depth ( $h_{nom}$ ) | Load direction | Load value |
|-----------------------------|-----------|-------------------------------|----------------|------------|
| All                         |           |                               |                |            |
| Non-cracked concrete C20/25 | $N_{Rec}$ | 81 mm                         |                | 7.9 kN     |
| Non-cracked concrete C20/25 | $V_{Rec}$ | 81 mm                         |                | 13.1 kN    |
| Cracked concrete C20/25     | $N_{Rec}$ | 81 mm                         |                | 4.8 kN     |
| Cracked concrete C20/25     | $V_{Rec}$ | 81 mm                         |                | 13.1 kN    |

# Installation

