

TILCA Nail Anchor N

Steel, zinc plated / Stainless steel A4 / HCR



ETA – 17/1004



R30-R120



A4/HCR



A4/HCR

1. Product description

Nail Anchor N combines the advantages of a wedge anchor with an even easier installation. The Nail Anchor is simply hammered through the fixture into the concrete. Applying torque is not necessary.

2. Areas of application

Fixing spacer clamps for radiating cables (EFCO Clic SKH- System, t_{fix} 10mm)
 Ceiling constructions, piping, cladding etc.
 Materials for all environmental conditions (HCR, Stainless Steel A4, Zinc plated)
 Range of concrete quality: C12/15–C50/60

3. Features

Quick and easy installation, simply hammered in – applying torque is not necessary!
 Preassembled Lock Nut Version
 Reduced anchorage depth (25 mm) possible
 ETA, also tested according to ZTV and RWS tunnel temperature curve in cracked concrete.
 Loads up to 2,81 kN

4. Technical Data/Materials

Nail Anchor N



→ Steel, zinc plated

→ with thread M6

| Designation Ø x length/ fixture thickness | Item No. | Standard anchorage depth | | | Reduced anchorage depth ¹⁾ | | | box [pcs] | weigh t/box [kg] |
|--|-----------|--------------------------|---------------|------------------|---------------------------------------|---------------|------------------|--------------|------------------------|
| | | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | | |
| N 6x49/5-10 | A44960 | 5 | 40 | 30 | 10 | 35 | 25 | 200 | 2,39 |
| N 6x54/10-15 | on demand | 10 | 40 | 30 | 15 | 35 | 25 | 200 | 2,58 |

¹⁾Only for dry indoor conditions

Nail Anchor N A4



→ Stainless steel A4 / AISI 316

→ with thread M6 & flange lock nut



| Designation Ø x length/ fixture thickness | Item No. | Standard anchorage depth | | | Reduced anchorage depth ²⁾ | | | box [pcs] | weigh t/box [kg] |
|--|----------|--------------------------|---------------|------------------------|---------------------------------------|---------------|------------------|--------------|------------------------|
| | | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | | |
| N 6x54/5-10 A4 lock nut | A44964 | 5 | 40 | 30 | 10 | 35 | 25 | 200 | 2.70 |
| N 6x69/10-25 A4 lock nut ³⁾ | A44963 | 10 | 50 | 40³⁾ | 25 | 35 | 25 | 200 | 3.14 |
| N 6x94/35-50 A4 lock nut ³⁾ | A44965 | 35 | 50 | 40³⁾ | 50 | 35 | 25 | 200 | 4.12 |

Material Detail

| | Item No. | bolt material ⁴⁾ | bolt CRC ⁵⁾ | nut material ⁴⁾ | nut CRC ⁵⁾ |
|--------------------------|----------|-----------------------------|------------------------|----------------------------|-----------------------|
| N 6x54/10 A4 lock nut | A44964 | A5 (1.4571) | CRC III | A4 (1.4404) | CRC III |
| N 6x69/10-25 A4 lock nut | A44963 | A4 (1.4578) | CRC III | A4 (1.4404) | CRC III |
| N 6x94/35-50 A4 lock nut | A44965 | A4 (1.4578) | CRC III | A4 (1.4404) | CRC III |

²⁾ Only for good concrete quality

³⁾ h_{ef} 40mm with lock nut DIN 6926, recommended for EFECO CLIC SKH application on rough surfaces

⁴⁾ Material designation according to ISO3506-6/2020,

⁵⁾ Corrosion Resistance Class DIN EN 1993-1-4:2015

Nail Anchor N HCR⁶⁾



→ Stainless steel A8 / HCR (1.4529)

→ with thread M6



| Designation Ø x length/ fixture thickness | Item No. | Standard anchorage depth | | | Reduced anchorage depth ²⁾ | | | box [pcs] | weigh t/box [kg] |
|--|-----------|--------------------------|---------------|------------------|---------------------------------------|---------------|------------------|--------------|------------------------|
| | | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | t_{fix} [mm] | h_1 [mm] | h_{ef} [mm] | | |
| N 6x49/5-10 A8 HCR | A44962 | 5 | 40 | 30 | 10 | 35 | 25 | 200 | 2,39 |
| N 6x54/10-15 A8 HCR | on demand | 10 | 40 | 30 | 15 | 35 | 25 | 200 | 2,58 |

²⁾ Only for good concrete quality

⁶⁾ Material: Bolt, Nut, Washer: A8/1.4529, CRC V

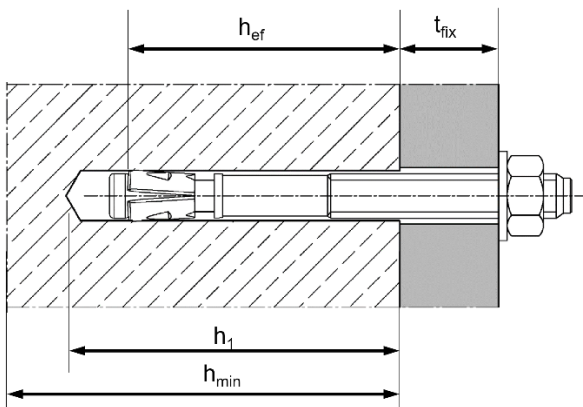


Extract from Permissible Service Conditions of European Technical Assessment ETA-17/1004 for use in concrete for redundant non-structural systems

Approved loads according to EN 1992-4 for single anchors without the influence of spacing and edge distances. The total safety factor (γ_M and γ_F) is included. The admissible loads per fixing point can be taken from the relevant national regulations of the EOTA member states and may be lower than the approved load of the anchor. Load capacities under fire exposure see page 197.

| Loads and performance data | Steel zinc plated, stainless steel A4, HCR | | N | |
|---|--|------|---------|--------------------|
| | | | cracked | uncracked concrete |
| Effective anchorage depth | h_{ef} | [mm] | 25 | ≥ 30 |
| Approved loads (Picture 1) | C12/15 | [kN] | 1,43 | 1,90 |
| | C20/25 - C50/60 | [kN] | 2,14 | 2,81 |
| Approved loads (Picture 2) | C12/15 | [kN] | 0,71 | 0,95 |
| | C20/25 - C50/60 | [kN] | 0,95 | 1,19 |
| Approved bending moments | appr. torque | [Nm] | 5,3 | 5,3 |
| Minimum thickness of concrete slab | h_{min} | [mm] | 80 | 80 |
| Installation parameters | | | | |
| Drill hole diameter | d_o | [mm] | 6 | 6 |
| Diameter of clearance hole in the fixture | d_f | [mm] | 7 | 7 |
| Depth of drill hole | h_1 | [mm] | 35 | ≥ 40 |
| Installation torque | $T_{inst}^{1)}$ | [Nm] | max 4 | max 4 |

¹⁾ No installation torque needed for lock nut version



Respective spacing and edge distances [mm]:

The approved load F is for one fixing point. One fixing point can be:

- Single anchor,
- Pair of anchors with spacing $s > 50$ mm or
- Group of four anchors with $s > 50$ mm

If the spacing in a fixing point is greater than or equal to the respective spacing between the fixing points, the characteristic resistances apply to every single anchor.

5. Testing /authorization /compliance

ETA -17/1004 (DIBT) including Fire Resistance Class R 120

Inspection Report 2011-B-0279 (MPA Dresden) Fire resistance R 140 tested according ZTV and RWS tunnel temperature curve

6. Accessories

Setting Tool for Tilca N

| Designation | Item No. | pack |
|---------------------------|----------|------|
| TILCA STNK SDS plus 6x205 | A45999 | 1 |



7. Safety data sheet

not required

8. Manufacturer/Brand

EFCO Fixing Technology Ltd

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