## **Drehstiftdübel**

6,0x40

Art.Nr.: 687444

(a) Tasks of the manufacturer:

(1)

(2)

(3)



Declaration of performance No.: PVO 01/2023 Trade name: Nail anchor NH / NHH / NHZ In accordance with regulation: EAD 330284-00-0604 European technical approval: ETA-22/0094 Generic type: Nail anchor NH / NHH / NHZ Ø 6 mm Use of construction product: Plastic anchors for multiple use in concrete for non-structural applications Manufacturer: GMS Bautechnik GmbH Sonnengasse 13 9020 Klagenfurt am Wörthersee Austria Manufacturing plant: Plant 1 System of declaration: System 2+ - Declaration of conformity of the product by manufacturer on the basis of:

(b) Tasks of the notified body
 (4) Certification of factory production control on the basis of:

Initial inspection of factory production control Continuous surveillance, assessment and approval of factory production control.

Initial type-tasting of the product

Testing of samples taken at the factory by the

manufacturer in accordance with a control plan.

Factory production control

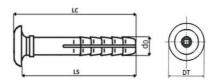
# **Drehstiftdübel**

6,0x40

Art.Nr.: 687444

# Pro one

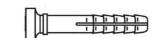
#### Plastic sleeve NHH 6



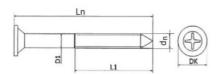
#### Plastic sleeve NH 6



#### Plastic sleeve NHZ 6



Specific nail



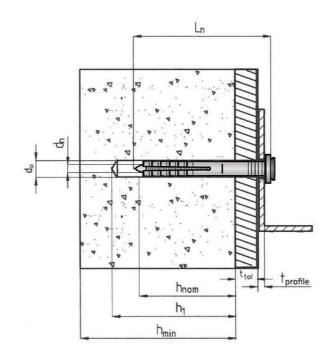


Table A1: Dimensions [mm]

|             | Anchor sleeve <sup>1)</sup> |               |               |               |  |  |  |
|-------------|-----------------------------|---------------|---------------|---------------|--|--|--|
| Anchor type | $d_0$                       | Lc<br>(±1,00) | Ls<br>(±1,00) | DT<br>(±0,25) |  |  |  |
|             | 6                           | 35            | 33            | 10            |  |  |  |
|             | 6                           | 40            | 38            | 10            |  |  |  |
|             | 6                           | 45            | 43            | 10            |  |  |  |
| NH 6        | 6                           | 55            | 53            | 10            |  |  |  |
|             | 6                           | 60            | 58            | 10            |  |  |  |
|             | 6                           | 70            | 68            | 10            |  |  |  |
|             | 6                           | 80            | 78            | 10            |  |  |  |
|             | 6                           | 35            | 33            | 12            |  |  |  |
|             | 6                           | 40            | 38            | 12            |  |  |  |
|             | 6                           | 45            | 43            | 12            |  |  |  |
| NHH 6       | 6                           | 55            | 53            | 12            |  |  |  |
|             | 6                           | 60            | 58            | 12            |  |  |  |
|             | 6                           | 70            | 68            | 12            |  |  |  |
|             | 6                           | 80            | 78            | 12            |  |  |  |
|             | 6                           | 35            | 31,8          | 10            |  |  |  |
|             | 6                           | 40            | 36,8          | 10            |  |  |  |
|             | 6                           | 45            | 41,8          | 10            |  |  |  |
| NHZ 6       | 6                           | 55            | 51,8          | 10            |  |  |  |
|             | 6                           | 60            | 56,8          | 10            |  |  |  |
|             | 6                           | 70            | 66,8          | 10            |  |  |  |
|             | 6                           | 80            | 76,8          | 10            |  |  |  |

# **Drehstiftdübel**

6,0x40

Art.Nr.: 687444

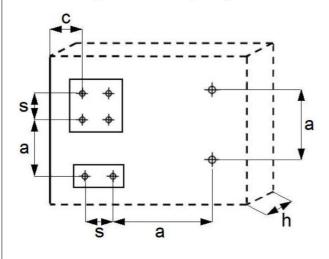


| Anchor type                                  |                    |      | NH / NHH / NHZ |  |  |
|--|--------------------|------|----------------|--|--|
| Use category                                 | a                  |      |                |  |  |
| Nominal drill hole diameter                  | do                 | [mm] | 6              |  |  |
| Cutting diameter of drill bit                | d <sub>cut</sub> ≤ | [mm] | 6,4            |  |  |
| Depth of drill hole to deepest point         | h₁≥                | [mm] | 35             |  |  |
| Overall embedment depth in the base material | h <sub>nom</sub> ≥ | [mm] | 30             |  |  |
| Diameter of clearance hole in the fixture    | df                 | [mm] | 6              |  |  |

Table B2: Minimum thickness of member, edge distance and anchor spacing in concrete

| Anchor type | Base material     | h <sub>min</sub><br>[mm] | C <sub>cr,N</sub><br>[mm] | C <sub>min</sub><br>[mm] | S <sub>min</sub><br>[mm] |
|-------------|-------------------|--------------------------|---------------------------|--------------------------|--------------------------|
| NH<br>NHH   | Concrete ≥ C12/15 | 100                      | 100                       | 100                      | 100                      |
| NHZ         | Concrete ≥ C16/20 | 100                      | 100                       | 100                      | 100                      |

#### Scheme of edge distance and spacing in concrete



| Nail anchor NH / NHH / NHZ Ø 6 mm            |           |
|--|-----------|
| Intended use                                 | Annex B2  |
| Installation parameters                      | Alliex B2 |
| Edge distance and anchor spacing in concrete |           |

# **Drehstiftdübel**

6,0x40

Art.Nr.: 687444



Table C1: Characteristic resistance of the nail

| Steel type                        |                    |      | Zinc coated steel |  |  |
|-----------------------------------|--------------------|------|-------------------|--|--|
| Characteristic tension resistance | $N_{Rk,s}$         | [kN] | 4,39              |  |  |
| Partial safety factor             | γ <sub>Ms</sub> 1) |      | 1,58              |  |  |
| Characteristic shear resistance   | $V_{Rk,s}$         | [kN] | 2,20              |  |  |
| Partial safety factor             | γ <sub>Ms</sub> 1) |      | 1,31              |  |  |
| Characteristic bending resistance | M <sub>Rk,s</sub>  | [Nm] | 2,41              |  |  |
| Partial safety factor             | γ <sub>Ms</sub> 1) |      | 1,31              |  |  |

<sup>1)</sup>in the absence of other national regulations

Table C2: Characteristic resistance for use in cracked and non-cracked concrete, pull-out failure hammer drilling

| nammer arming             |                        |                |  |  |  |  |
|---------------------------|------------------------|----------------|--|--|--|--|
| Anchor type               |                        | NH / NHH / NHZ |  |  |  |  |
| Concrete ≥ C16/20         |                        |                |  |  |  |  |
| Characteristic resistance | N <sub>Rk,p</sub> [kN] | 0,5            |  |  |  |  |
| Partial safety factor     | γmc <sup>1)</sup>      | 1,8            |  |  |  |  |
|                           | Concrete C             | C12/15         |  |  |  |  |
| Characteristic resistance | N <sub>Rk,p</sub> [kN] | 0,3            |  |  |  |  |
| Partial safety factor     | γ <sub>Mc</sub> 1)     | 1,8            |  |  |  |  |

<sup>1)</sup>in the absence of other national regulations

Table C3: Displacement under tension and shear loading in concrete

|                  | Tension load |                         |                         | Shear load |                         |                         |
|------------------|--------------|-------------------------|-------------------------|------------|-------------------------|-------------------------|
| Anchor type      | N<br>[kN]    | δ <sub>N0</sub><br>[mm] | δ <sub>N∞</sub><br>[mm] | V<br>[kN]  | δ <sub>V0</sub><br>[mm] | δ <sub>V∞</sub><br>[mm] |
| NH<br>NHH<br>NHZ | 0,2          | 0,78                    | 1,56                    | 0,79       | 2,77                    | 4,16                    |

Valid for temperature ranges according to Annex B1

| Nail anchor NH / NHH / NHZ Ø 6 mm                   |          |
|---|----------|
| Performances Characteristic resistance of the screw | Annex C1 |

# **Drehstiftdübel**

6,0x40

Art.Nr.: 687444



This declaration of performance is issued under the sole responsibility of the manufacturer.

Klagenfurt, 08.02.2023

Fridolin Michenthaler – Managing Director