

SL

IZJAVA O LASTNOSTIH

v skladu s Prilogo III uredbe (EU) št. 305/2011 (Uredba o gradbenih proizvodih)

 Hilti samovrtalni vijaki S-MS Z, S-MS C
 Št. Hilti-SF-DoP-003

- 1. Enotna identifikacijska oznaka tipa proizvoda:** Hilti samovrtalni vijaki S-MS Z, S-MS C
- 2. Tip, serijska ali zaporedna številka ali kateri koli drug element, na podlagi katerega je mogoče prepoznati gradbene proizvode, v skladu s členom 11(4):** Tip in serijska številka sta odtisnjena na embalaži
- 3. Predvidena uporaba ali predvidene vrste uporabe gradbenega proizvoda v skladu z veljavno harmonizirano tehnično specifikacijo, kot jih predvideva proizvajalec:**

| | |
|-------------------------------|---|
| Splošni tip in uporaba | Samovrtalni pritrjevalni vijaki za kovinske elemente in pločevino |
| Velikosti izdelka | Premer vijaka 4,8 mm |
| Osnovni in pritrjeni material | Jeklo, skladno z EN 10346 Aluminijeva zlitina skladna z EN 485/EN 573, |
| Pritrjevalni material | Galvanizirano ali barvano, kaljeno ogljikovo jeklo, skladno z EN 10084 |
| Obremenitev | Statična in kvazistatična (izpostavljenost vetru) |

- 4. Ime, registrirano trgovsko ime ali registrirana blagovna znamka in naslov proizvajalca v skladu s členom 11 (5):** Hilti Aktiengesellschaft, Poslovna enota Neposredno pritrjevanje, 9494 Schaan, Kneževina Liechtenstein
- 5. Po potrebi ime ali naslov pooblaščenega zastopnika, katerega pooblastilo zajema naloge, opredeljene v členu 12(2):** n.a.
- 6. Sistem ali sistemi ocenjevanja in preverjanja nespremenljivosti lastnosti gradbenega proizvoda, kot je določeno v Prilogi V:** Sistem 2+
- 7. Za izjavo o lastnostih glede gradbenega proizvoda, za katerega velja harmoniziran standard:** n.a.

8. V primeru, ko se izjava o lastnostih nanaša na gradbeni proizvod za katerega je bilo izdano evropsko tehnično soglasje:

Na osnovi EAD 330046-01-0602 je izdana ETA-10/0182. Priglašeni organ št. 0769 MPA-Karlsruhe je v okviru sistema 2+ izvedel naloge priglašene organa in izdal certifikat o skladnosti notranje kontrole proizvodnje.

9. Navedene lastnosti:

| Bistvena lastnost | Lastnost | Harmonizirana tehnična specifikacija |
|---|--|--------------------------------------|
| Karakteristična natezna nosilnost $N_{R,k}$ | Priloge 1-6 ETA-10/0182 (Priloge 4 – 9) | ETA-10/0182 EAD 330046-01-0602 |
| Karakteristična strižna nosilnost $V_{R,k}$ | | |
| Vrste povezave | | |
| Meje uporabe | | |
| Odziv na ogenj | | |

10. Lastnosti proizvoda, navedenega v točki 1 in 2, so v skladu z navedenimi lastnostmi iz točke 9. Za izdajo te izjave o lastnostih je odgovoren izključno proizvajalec, naveden v točki 4.

Podpisal za in v imenu proizvajalca:

Lars Taenzer

Vodja enote Neposredno pritrjevanje

Pierre Hohmeier

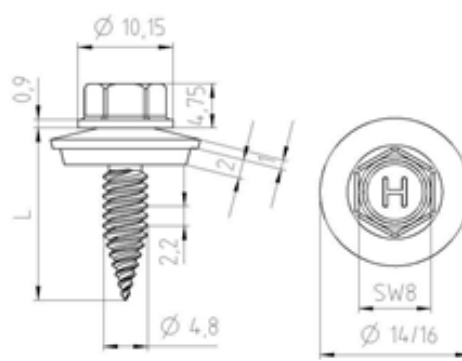
Vodja kakovosti v oddelku Vijačenje

Hilti Aktiengesellschaft, Schaan, 03.05.2019

Annex 1:
ETA-10/0182, Annex 4

| | <p>Material:</p> <p>Fastener: carbon steel, case hardened and galvanized or coated</p> <p>Washer: none</p> <p>Component I: S280GD, S320GD, S350GD - EN 10346</p> <p>Component II: S280GD, S320GD, S350GD - EN 10346</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|------|------|------|------|------|---|---|---|---|------|------|---|---|---|---|---|---|---|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|------|------|------|------|------|---|---|---|---|------|------|---|---|---|---|---|---|---|--------------------------|--|--|--|--|--|--|--|--|--|-----------------------------------|--|
| | <p>Drilling capacity: $\Sigma t_i \leq 2,50$ mm</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>Timber substructures:</p> <p>no performance determined</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th rowspan="2">t [mm]</th> <th colspan="9">t_i [mm]</th> </tr> <tr> <th>0,50</th> <th>0,55</th> <th>0,63</th> <th>0,75</th> <th>0,88</th> <th>1,00</th> <th>1,13</th> <th>1,25</th> </tr> </thead> <tbody> <tr> <td rowspan="11">V_{0,x} [kN]</td> <td>0,50</td> <td>1,29</td> <td>1,37</td> <td>1,51</td> <td>1,71</td> <td>1,71</td> <td>1,71</td> <td>1,71</td> <td>1,71</td> </tr> <tr> <td>0,55</td> <td>1,29</td> <td>1,54</td> <td>1,65</td> <td>1,82</td> <td>1,82</td> <td>1,82</td> <td>1,82</td> <td>2,05</td> </tr> <tr> <td>0,63</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,00</td> <td>2,00</td> <td>2,00</td> <td>2,00</td> <td>2,59</td> </tr> <tr> <td>0,75</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,27</td> <td>2,27</td> <td>2,84</td> <td>3,40</td> </tr> <tr> <td>0,88</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,96</td> <td>2,96</td> <td>2,96</td> <td>3,40</td> </tr> <tr> <td>1,00</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,96</td> <td>3,64</td> <td>3,64</td> <td>3,64</td> </tr> <tr> <td>1,13</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,96</td> <td>3,64</td> <td>3,87</td> <td>3,87</td> </tr> <tr> <td>1,25</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,96</td> <td>3,64</td> <td>3,87</td> <td>4,10</td> </tr> <tr> <td>1,50</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>2,96</td> <td>3,64</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,75</td> <td>1,29</td> <td>1,54</td> <td>1,80</td> <td>2,27</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>2,00</td> <td>1,29</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td rowspan="11">N_{0,x} [kN]</td> <td>0,50</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>1,93</td> <td>1,93</td> </tr> <tr> <td>0,55</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,25</td> </tr> <tr> <td>0,63</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>0,75</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>0,88</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>1,00</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>1,13</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>1,25</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>2,09</td> <td>2,34</td> </tr> <tr> <td>1,50</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>1,56</td> <td>1,82</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,75</td> <td>0,76</td> <td>0,87</td> <td>1,04</td> <td>1,29</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>2,00</td> <td>0,76</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>M_{0,perm} [Nm]</td> <td colspan="9"></td> </tr> </tbody> </table> | t [mm] | t _i [mm] | | | | | | | | | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,13 | 1,25 | V _{0,x} [kN] | 0,50 | 1,29 | 1,37 | 1,51 | 1,71 | 1,71 | 1,71 | 1,71 | 1,71 | 0,55 | 1,29 | 1,54 | 1,65 | 1,82 | 1,82 | 1,82 | 1,82 | 2,05 | 0,63 | 1,29 | 1,54 | 1,80 | 2,00 | 2,00 | 2,00 | 2,00 | 2,59 | 0,75 | 1,29 | 1,54 | 1,80 | 2,27 | 2,27 | 2,27 | 2,84 | 3,40 | 0,88 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 2,96 | 2,96 | 3,40 | 1,00 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,64 | 3,64 | 1,13 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,87 | 3,87 | 1,25 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,87 | 4,10 | 1,50 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | — | — | 1,75 | 1,29 | 1,54 | 1,80 | 2,27 | — | — | — | — | 2,00 | 1,29 | — | — | — | — | — | — | — | N _{0,x} [kN] | 0,50 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 1,93 | 1,93 | 0,55 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,25 | 0,63 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 0,75 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 0,88 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 1,00 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 1,13 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 1,25 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | 1,50 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | — | — | 1,75 | 0,76 | 0,87 | 1,04 | 1,29 | — | — | — | — | 2,00 | 0,76 | — | — | — | — | — | — | — | M _{0,perm} [Nm] | | | | | | | | | | <p>No additional regulations.</p> | |
| t [mm] | | t _i [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,13 | 1,25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V _{0,x} [kN] | 0,50 | 1,29 | 1,37 | 1,51 | 1,71 | 1,71 | 1,71 | 1,71 | 1,71 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,55 | 1,29 | 1,54 | 1,65 | 1,82 | 1,82 | 1,82 | 1,82 | 2,05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,63 | 1,29 | 1,54 | 1,80 | 2,00 | 2,00 | 2,00 | 2,00 | 2,59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,75 | 1,29 | 1,54 | 1,80 | 2,27 | 2,27 | 2,27 | 2,84 | 3,40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,88 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 2,96 | 2,96 | 3,40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,00 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,64 | 3,64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,13 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,87 | 3,87 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,25 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | 3,87 | 4,10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,50 | 1,29 | 1,54 | 1,80 | 2,27 | 2,96 | 3,64 | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,75 | 1,29 | 1,54 | 1,80 | 2,27 | — | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2,00 | 1,29 | — | — | — | — | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| N _{0,x} [kN] | 0,50 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 1,93 | 1,93 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,55 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,63 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,75 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0,88 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,00 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,13 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,25 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | 2,09 | 2,34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,50 | 0,76 | 0,87 | 1,04 | 1,29 | 1,56 | 1,82 | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,75 | 0,76 | 0,87 | 1,04 | 1,29 | — | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2,00 | 0,76 | — | — | — | — | — | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M _{0,perm} [Nm] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Self piercing screw</p> | | <p>Annex 4</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Hilti S-MS 01 Z 4,8 x L Hilti S-MS 01 C 4,8 x L with hexagon head</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Annex 2:
ETA-10/0182, Annex 5



Material:
Fastener: carbon steel, case hardened and galvanized or coated
Washer: carbon steel, galvanized or coated stainless Steel (1.4301) - EN 10088
Component I: S280GD, S320GD, S350GD - EN 10346
Component II: S280GD, S320GD, S350GD - EN 10346

Drilling capacity: $\Sigma t_i \leq 2,50$ mm

Timber substructures:
no performance determined

| | t_i [mm] | t_i [mm] | | | | | | | | | | | | | | | |
|---------------|------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | 0,40 | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,25 | 0,40 | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,25 |
| V_{Rk} [kN] | 0,40 | 0,81 | 0,87 | 0,90 | 0,95 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 |
| | 0,50 | 0,81 | 1,01 | 1,01 | 1,02 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 | 1,03 |
| | 0,55 | 0,81 | 1,01 | 1,28 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 | 1,26 |
| | 0,63 | 0,81 | 1,01 | 1,28 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 | 1,66 |
| | 0,75 | 0,81 | 1,01 | 1,28 | 1,66 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 | 2,26 |
| | 0,88 | 0,81 | 1,01 | 1,28 | 1,66 | 2,26 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 | 2,77 |
| | 1,00 | 0,81 | 1,01 | 1,28 | 1,66 | 2,26 | 2,77 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 | 3,24 |
| | 1,25 | 0,81 | 1,01 | 1,28 | 1,66 | 2,26 | 2,77 | 3,24 | 4,24 | 4,24 | 4,24 | 4,24 | 4,24 | 4,24 | 4,24 | 4,24 | 4,24 |
| N_{Rk} [kN] | 0,40 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 | 1,43 |
| | 0,50 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 | 1,80 |
| | 0,55 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 | 1,90 |
| | 0,63 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 2,34 | 2,34 | 2,34 | 2,34 | 2,34 | 2,34 | 2,34 | 2,34 | 2,34 |
| | 0,75 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 |
| | 0,88 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 |
| | 1,00 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 |
| | 1,25 | 0,46 | 0,76 | 0,88 | 1,03 | 1,27 | 1,60 | 1,90 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 | 2,49 |
| M_{Rk} [Nm] | | | | | | | | | | | | | | | | | |

If both components I and II are made of S320GD or S350GD the grey highlighted values may be increased by 8,0%.

| | |
|---|---------|
| Self piercing screw | Annex 5 |
| Hilti S-MS 41 Z 4,8 x L Hilti S-MS 41 C 4,8 x L Hilti S-MS 51 Z 4,8 x L Hilti S-MS 51 C 4,8 x L with hexagon head and sealing washer $\geq \varnothing 14$ mm | |

Annex 3:
ETA-10/0182, Annex 6

Material:

Fastener: carbon steel, case hardened and galvanized or coated

Washer: carbon steel, galvanized or coated
stainless Steel (1.4301) - EN 10088

Component I: aluminium alloy with $R_{m,min} = 215 \text{ N/mm}^2$ - EN 573

Component II: aluminium alloy with $R_{m,min} = 215 \text{ N/mm}^2$ - EN 573

Drilling capacity: $\Sigma t_i \leq 2,50 \text{ mm}$

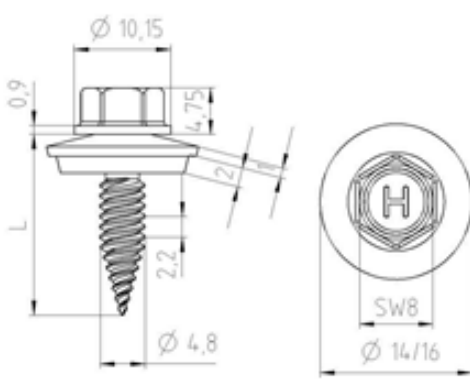
Timber substructures:
no performance determined

| t [mm] | t _i [mm] | | | | | |
|--------------------------|---------------------|------|------|------|------|------|
| | 0,50 | 0,60 | 0,70 | 0,80 | 1,00 | 1,20 |
| V _{rel,k} [kN] | 0,50 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 |
| | 0,60 | 0,71 | 0,92 | 0,92 | 0,92 | 0,92 |
| | 0,70 | 0,71 | 0,92 | 1,14 | 1,14 | 1,14 |
| | 0,80 | 0,71 | 0,92 | 1,14 | 1,35 | 1,35 |
| | 1,00 | 0,71 | 0,92 | 1,14 | 1,35 | 1,88 |
| | 1,20 | 0,71 | 0,92 | 1,14 | 1,35 | 1,88 |
| N _{s,k} [kN] | 0,50 | 0,35 | 0,49 | 0,52 | 0,52 | 0,52 |
| | 0,60 | 0,35 | 0,49 | 0,63 | 0,63 | 0,63 |
| | 0,70 | 0,35 | 0,49 | 0,63 | 0,73 | 0,73 |
| | 0,80 | 0,35 | 0,49 | 0,63 | 0,77 | 0,84 |
| | 1,00 | 0,35 | 0,49 | 0,63 | 0,77 | 1,00 |
| | 1,20 | 0,35 | 0,49 | 0,63 | 0,77 | 1,00 |
| N _{R,ilk} [kN] | 0,35 | 0,49 | 0,63 | 0,77 | 1,00 | 1,29 |
| M _{torq,m} [Nm] | | | | | | |

The pull-through-capacities of the grey highlighted values N_{s,k} have been determined according to EN 1999-1-4:2007 section 8.3.3.1 by calculation. This values N_{s,k} may be increased by 6,9% when using the type „S-MS 5x“.

| | |
|---|---------|
| Self piercing screw | Annex 6 |
| Hilti S-MS 41 Z 4,8 x L Hilti S-MS 41 C 4,8 x L Hilti S-MS 51 Z 4,8 x L Hilti S-MS 51 C 4,8 x L with hexagon head and sealing washer ≥ Ø14 mm | |

Annex 4:
ETA-10/0182, Annex 7



Material:

Fastener: carbon steel, case hardened and galvanized or coated

Washer: carbon steel, galvanized or coated stainless Steel (1.4301) - EN 10088

Component I: aluminium alloy with $R_{m,min} = 165 \text{ N/mm}^2$ - EN 573

Component II: aluminium alloy with $R_{m,min} = 165 \text{ N/mm}^2$ - EN 573

Drilling capacity: $\Sigma t_i \leq 2,50 \text{ mm}$

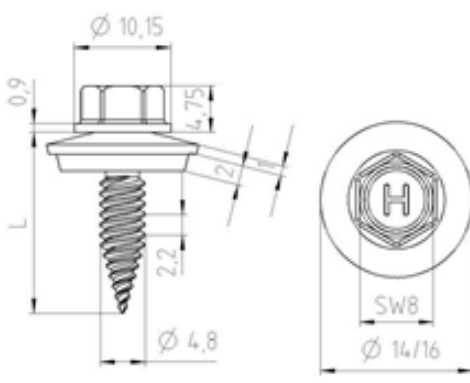
Timber substructures:
no performance determined

| t [mm] | t _i [mm] | | | | | | |
|--------------------------|---------------------|------|------|------|------|------|------|
| | 0,50 | 0,60 | 0,70 | 0,80 | 1,00 | 1,20 | |
| V _{rel,k} [kN] | 0,50 | 0,55 | 0,55 | 0,55 | 0,55 | 0,55 | 0,55 |
| | 0,60 | 0,55 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 |
| | 0,70 | 0,55 | 0,71 | 0,88 | 0,88 | 0,88 | 0,88 |
| | 0,80 | 0,55 | 0,71 | 0,88 | 1,04 | 1,04 | 1,04 |
| | 1,00 | 0,55 | 0,71 | 0,88 | 1,04 | 1,44 | 1,44 |
| | 1,20 | 0,55 | 0,71 | 0,88 | 1,04 | 1,44 | 1,83 |
| N _{2,x} [kN] | 0,50 | 0,27 | 0,38 | 0,40 | 0,40 | 0,40 | 0,40 |
| | 0,60 | 0,27 | 0,38 | 0,48 | 0,48 | 0,48 | 0,48 |
| | 0,70 | 0,27 | 0,38 | 0,48 | 0,56 | 0,56 | 0,56 |
| | 0,80 | 0,27 | 0,38 | 0,48 | 0,59 | 0,64 | 0,64 |
| | 1,00 | 0,27 | 0,38 | 0,48 | 0,59 | 0,76 | 0,80 |
| | 1,20 | 0,27 | 0,38 | 0,48 | 0,59 | 0,76 | 0,98 |
| N _{2,lik} [kN] | 0,27 | 0,38 | 0,48 | 0,59 | 0,76 | 1,03 | |
| M _{1,100m} [Nm] | | | | | | | |

The pull-through-capacities of the grey highlighted values $N_{2,x}$ have been determined according to EN 1999-1-4:2007 section 8.3.3.1 by calculation. This values $N_{2,x}$ may be increased by 6,9% when using the type „S-MS 5x“.

| Self piercing screw | | Annex 7 |
|---|--|---------|
| Hilti S-MS 41 Z 4,8 x L Hilti S-MS 41 C 4,8 x L Hilti S-MS 51 Z 4,8 x L Hilti S-MS 51 C 4,8 x L with hexagon head and sealing washer $\geq \text{Ø}14 \text{ mm}$ | | |

Annex 5:
ETA-10/0182, Annex 8



Material:

Fastener: carbon steel, case hardened and galvanized or coated

Washer: carbon steel, galvanized or coated
stainless Steel (1.4301) - EN 10088

Component I: aluminium alloy with $R_{m,min} = 215 \text{ N/mm}^2$ - EN 573

Component II: S280GD, S320GD, S350GD - EN 10346

Drilling capacity: $\Sigma t_i \leq 2,50 \text{ mm}$

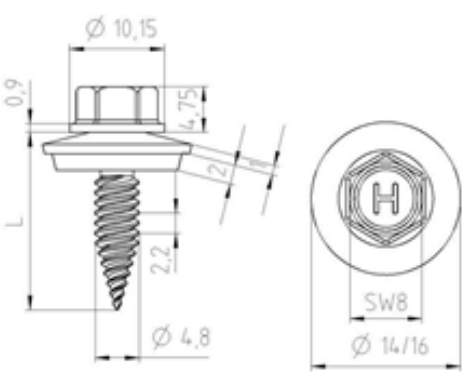
Timber substructures:
no performance determined

| t [mm] | t _i [mm] | | | | | | | |
|--------------------------|---------------------|------|------|------|------|------|------|------|
| | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,25 | |
| V _{FeK} [kN] | 0,50 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 |
| | 0,60 | 0,71 | 0,71 | 0,92 | 0,92 | 0,92 | 0,92 | 0,92 |
| | 0,70 | 0,71 | 0,71 | 0,92 | 1,14 | 1,14 | 1,14 | 1,14 |
| | 0,80 | 0,71 | 0,71 | 0,92 | 1,14 | 1,35 | 1,35 | 1,35 |
| | 1,00 | 0,71 | 0,71 | 0,92 | 1,14 | 1,35 | 1,88 | 1,88 |
| | 1,20 | 0,71 | 0,71 | 0,92 | 1,14 | 1,35 | 1,88 | 2,28 |
| N _{2,x} [kN] | 0,50 | 0,52 | 0,52 | 0,52 | 0,52 | 0,52 | 0,52 | 0,52 |
| | 0,60 | 0,63 | 0,63 | 0,63 | 0,63 | 0,63 | 0,63 | 0,63 |
| | 0,70 | 0,73 | 0,73 | 0,73 | 0,73 | 0,73 | 0,73 | 0,73 |
| | 0,80 | 0,76 | 0,84 | 0,84 | 0,84 | 0,84 | 0,84 | 0,84 |
| | 1,00 | 0,76 | 0,87 | 1,04 | 1,05 | 1,05 | 1,05 | 1,05 |
| | 1,20 | 0,76 | 0,87 | 1,04 | 1,26 | 1,26 | 1,26 | 1,26 |
| N _{2,ilk} [kN] | 0,76 | 0,87 | 1,04 | 1,28 | 1,58 | 1,86 | 2,42 | |
| M _{1,perm} [Nm] | | | | | | | | |

The pull-through-capacities of the grey highlighted values $N_{2,x}$ have been determined according to EN 1999-1-4:2007 section 8.3.3.1 by calculation. This values $N_{2,x}$ may be increased by 6,9% when using the type „S-MS 5x“.

| Self piercing screw | | Annex 8 |
|---|--|---------|
| Hilti S-MS 41 Z 4,8 x L Hilti S-MS 41 C 4,8 x L Hilti S-MS 51 Z 4,8 x L Hilti S-MS 51 C 4,8 x L with hexagon head and sealing washer $\geq \varnothing 14 \text{ mm}$ | | |

Annex 6:
ETA-10/0182, Annex 9



Material:

Fastener: carbon steel, case hardened and galvanized or coated

Washer: carbon steel, galvanized or coated stainless Steel (1.4301) - EN 10088

Component I: aluminium alloy with $R_{m,min} = 165 \text{ N/mm}^2$ - EN 573

Component II: S280GD, S320GD, S350GD - EN 10346

Drilling capacity: $\Sigma t \leq 2,50 \text{ mm}$

Timber substructures:
no performance determined

| t [mm] | t _i [mm] | | | | | | | |
|-------------------------------|---------------------|------|------|------|------|------|------|------|
| | 0,50 | 0,55 | 0,63 | 0,75 | 0,88 | 1,00 | 1,25 | |
| V_{rel} [kN] | 0,50 | 0,55 | 0,55 | 0,55 | 0,55 | 0,55 | 0,55 | 0,55 |
| | 0,60 | 0,55 | 0,55 | 0,71 | 0,71 | 0,71 | 0,71 | 0,71 |
| | 0,70 | 0,55 | 0,55 | 0,71 | 0,88 | 0,88 | 0,88 | 0,88 |
| | 0,80 | 0,55 | 0,55 | 0,71 | 0,88 | 1,04 | 1,04 | 1,04 |
| | 1,00 | 0,55 | 0,55 | 0,71 | 0,88 | 1,04 | 1,44 | 1,44 |
| | 1,20 | 0,55 | 0,55 | 0,71 | 0,88 | 1,04 | 1,44 | 1,83 |
| N_{0,k} [kN] | 0,50 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 | 0,40 |
| | 0,60 | 0,48 | 0,48 | 0,48 | 0,48 | 0,48 | 0,48 | 0,48 |
| | 0,70 | 0,58 | 0,58 | 0,58 | 0,58 | 0,58 | 0,58 | 0,58 |
| | 0,80 | 0,64 | 0,64 | 0,64 | 0,64 | 0,64 | 0,64 | 0,64 |
| | 1,00 | 0,78 | 0,80 | 0,80 | 0,80 | 0,80 | 0,80 | 0,80 |
| | 1,20 | 0,78 | 0,87 | 0,96 | 0,96 | 0,96 | 0,96 | 0,96 |
| N_{R,11k} [kN] | 0,76 | 0,87 | 1,04 | 1,28 | 1,58 | 1,86 | 2,42 | |
| M_{torq} [Nm] | | | | | | | | |

The pull-through-capacities of the grey highlighted values $N_{R,k}$ have been determined according to EN 1999-1-4:2007 section 8.3.3.1 by calculation. This values $N_{R,k}$ may be increased by 6,9% when using the type „S-MS 5x“.

| Self piercing screw | | Annex 9 |
|---|--|---------|
| Hilti S-MS 41 Z 4,8 x L Hilti S-MS 41 C 4,8 x L Hilti S-MS 51 Z 4,8 x L Hilti S-MS 51 C 4,8 x L with hexagon head and sealing washer $\geq \text{Ø}14 \text{ mm}$ | | |