

NL

PRESTATIEVERKLARING

in overeenstemming met Bijlage III van de Verordening (EU) nr. 305/2011 (Verordening bouwproducten)

 Hilti sandwichpaneelschroeven S-CD C
 Nr. Hilti-SF-DoP-010

1. Unieke identificatiecode van het producttype: Hilti bevestigingsschroeven voor sandwichpanelen S-CD C

2. Type-, partij- of serienummer, dan wel enig ander identificatiemiddel voor het bouwproduct, zoals voorgeschreven in artikel 11, lid 4: type- en partijnummer vermeld op de verpakking

3. Beoogd(e) gebruik(en) van het bouwproduct, in overeenstemming met de toepasselijke geharmoniseerde technische specificatie, zoals door de fabrikant bepaald:

Generiek type en gebruik	Zelfborende bevestigingsschroeven voor sandwichpanelen
Gedekte productgrootte	Schroefdiameter 5,5 mm
Basis en bevestigd materiaal	Staal volgens EN 10025-1 en EN 10346
Bevestigingsmateriaal	Koolstofstaal, gehard en gecoat
Belasting	Statisch en quasi-statisch (windbelasting)

4. De naam, de gedeponeerde handelsnaam of het gedeponeerde handelsmerk, en het contactadres van de fabrikant zoals vereist volgens artikel 11, lid 5: Hilti Aktiengesellschaft, Business Unit Direct FASTening, 9494 Schaan, Fürstentum Liechtenstein

5. Indien van toepassing, naam en contactadres van de gemachtigde wiens mandaat de in artikel 12, lid 2, vermelde taken bestrijkt: n.v.t.

6. Systeem of systemen voor de beoordeling en verificatie van de prestatiebestendigheid van het bouwproduct, zoals vermeld in bijlage V: systeem 2+

7. Indien de prestatieverklaring betrekking heeft op een bouwproduct dat onder een geharmoniseerde norm valt: n.v.t.

8. ETA. Indien de prestatieverklaring betrekking heeft op een bouwproduct waarvoor een Europese technische beoordeling is afgegeven: DIBt, Deutsches Institut für Bautechnik (Duits Instituut voor Bouwtechniek) heeft ETA-13/0179 uitgevaardigd op basis van EAD 330047-01-0602. De genotificeerde instantie MPA-Karlsruhe 0769 heeft de taken van derde partij uitgevoerd volgens systeem 2+ en heeft een certificaat van overeenstemming betreffende de productiecontrole 0769-CPD-00705.

9. Aangegeven prestatie(s):

Essentiële kenmerken	Prestatie	Geharmoniseerde technische specificatie
Kenmerkende trekweerstand $N_{R,k}$	Bijlage 1-8 ETA-13/0179 (bijlage 4-7, 12-15)	ETA 13/0179 EAD 330047-01-0602
Karakteristieke schuifweerstand $V_{R,k}$		
Max. toegestane verplaatsing schroefkop u		
Toepassingslimieten		
Reactie op brand	A1	

10. De prestaties van het onder punt 1 en 2 omschreven product zijn conform de in punt 9 aangegeven prestaties. Deze prestatieverklaring wordt onder de exclusieve verantwoordelijkheid van de in punt 4 vermelde fabrikant verstrekt.

Ondertekend voor en namens de fabrikant door:

Lars Taenzer
Head of Business Unit Direct Fastening

Pierre Hohmeier
Head of Quality Screw Fastening

Hilti Aktiengesellschaft, Schaan, 01-05-2019

Annex 1:
ETA-13/0179, Annex 4

	<p>Material:</p> <p>Fastener: carbon steel, case hardened and coated</p> <p>Washer: aluminium alloy EN AW-5754 - EN 485</p> <p>Component I: S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p> <p>Component II: S235, S275, S355, S420 - EN 10025-1 S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p>										
	<p>Drilling capacity: $\Sigma t_i \leq 6,00$ mm</p>										
	<p>Timber substructures: no performance determined</p>										
	t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]					
$V_{R,k}$ [kN]	0,40	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	—
	0,50	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	—
	0,55	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	—
	0,60	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—
	0,63	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—
	0,75	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	—
	0,88	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	—
	1,00	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	—
$N_{R,k}$ [kN]	0,40	1,39	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—
	0,50	1,39	1,63	1,63	1,63	1,63	1,63	1,63	1,63	1,63	—
	0,55	1,39	2,03	2,03	2,03	2,03	2,03	2,03	2,03	2,03	—
	0,60	1,39	2,43	2,43	2,43	2,43	2,43	2,43	2,43	2,43	—
	0,63	1,39	2,68	2,68	2,68	2,68	2,68	2,68	2,68	2,68	—
	0,75	1,39	2,86	3,64	3,64	3,64	3,64	3,64	3,64	3,64	—
	0,88	1,39	2,86	4,04	4,04	4,04	4,04	4,04	4,04	4,04	—
	1,00	1,39	2,86	4,32	4,41	4,41	4,41	4,41	4,41	4,41	—
u [mm]	40	4,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	—
	50	5,0	2,8	2,8	2,8	2,8	2,8	2,8	2,8	2,8	—
	60	6,0	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	—
	70	7,0	4,1	4,1	4,1	4,1	4,1	4,1	4,1	4,1	—
	80	8,0	4,7	4,7	4,7	4,7	4,7	4,7	4,7	4,7	—
	90	9,0	5,3	5,3	5,3	5,3	5,3	5,3	5,3	5,3	—
≥ 100	10,0	5,8	5,8	5,8	5,8	5,8	5,8	5,8	5,8	—	
$N_{R,k,II}$ [kN]		1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	8,71	—
No additional regulations.											
Self drilling screw										Annex 4	
Hilti S-CDH 53 C 5,5 x L with hexagon head and sealing washer Ø16 mm											

Annex 2:
ETA-13/0179, Annex 5

	<p>Material:</p> <p>Fastener: carbon steel, case hardened and coated</p> <p>Washer: aluminium alloy EN AW-5754 - EN 485</p> <p>Component I: S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p> <p>Component II: S235, S275, S355, S420 - EN 10025-1 S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p>																																																																																																																																																																																																																																																																																			
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<table border="1"> <thead> <tr> <th>t_{N1}, t_{N2}, d, D [mm]</th> <th>1,50</th> <th>2,00</th> <th>2,50</th> <th>3,00</th> <th colspan="5">t_{II} [mm]</th> <th></th> </tr> <tr> <th></th> <th>1,50</th> <th>2,00</th> <th>2,50</th> <th>3,00</th> <th>3,50</th> <th>4,00</th> <th>4,50</th> <th>5,00</th> <th>—</th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="8">$V_{R,k}$ [kN]</td> <td>0,40</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>—</td> </tr> <tr> <td>0,63</td> 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<td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>—</td> </tr> <tr> <td>60</td> <td>6,0</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>—</td> </tr> <tr> <td>70</td> <td>7,0</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>—</td> </tr> <tr> <td>80</td> <td>8,0</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>—</td> </tr> <tr> <td>90</td> <td>9,0</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>—</td> </tr> <tr> <td>≥ 100</td> <td>10,0</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>—</td> </tr> <tr> <td>$N_{R,k,II}$ [kN]</td> <td>1,39</td> <td>2,86</td> <td>4,32</td> <td>5,79</td> <td>7,25</td> <td>8,71</td> <td>8,71</td> <td>8,71</td> <td>—</td> <td></td> </tr> </tbody> </table>	t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]							1,50	2,00	2,50	3,00	3,50	4,00	4,50	5,00	—		$V_{R,k}$ [kN]	0,40	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	—	0,50	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	—	0,55	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	—	0,60	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—	0,63	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—	0,75	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	—	0,88	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	—	1,00	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	—	$N_{R,k}$ [kN]	0,40	1,39	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—	0,50	1,39	1,79	1,79	1,79	1,79	1,79	1,79	1,79	—	0,55	1,39	2,20	2,20	2,20	2,20	2,20	2,20	2,20	—	0,60	1,39	2,61	2,61	2,61	2,61	2,61	2,61	2,61	—	0,63	1,39	2,86	2,86	2,86	2,86	2,86	2,86	2,86	—	0,75	1,39	2,86	3,85	3,85	3,85	3,85	3,85	3,85	—	0,88	1,39	2,86	4,15	4,15	4,15	4,15	4,15	4,15	—	1,00	1,39	2,86	4,32	4,42	4,42	4,42	4,42	4,42	—	u [mm]	40	4,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	—	50	5,0	2,8	2,8	2,8	2,8	2,8	2,8	2,8	—	60	6,0	3,5	3,5	3,5	3,5	3,5	3,5	3,5	—	70	7,0	4,1	4,1	4,1	4,1	4,1	4,1	4,1	—	80	8,0	4,7	4,7	4,7	4,7	4,7	4,7	4,7	—	90	9,0	5,3	5,3	5,3	5,3	5,3	5,3	5,3	—	≥ 100	10,0	5,8	5,8	5,8	5,8	5,8	5,8	5,8	—	$N_{R,k,II}$ [kN]	1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	—		<p>No additional regulations.</p>									
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$N_{R,k,II}$ [kN]	1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	—																																																																																																																																																																																																																																																																											
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Annex 5																																																																																																																																																																																																																																																																																				

Annex 3:
ETA-13/0179, Annex 6

	<p>Material:</p> <p>Fastener: carbon steel, case hardened and coated</p> <p>Washer: aluminium alloy EN AW-5754 - EN 485</p> <p>Component I: S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p> <p>Component II: S235, S275, S355, S420 - EN 10025-1 S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p>																																																																																																																																																																																																																																																																																			
	<p>Drilling capacity: $\Sigma t_i \leq 6,00$ mm</p>																																																																																																																																																																																																																																																																																			
	<p>Timber substructures: no performance determined</p>																																																																																																																																																																																																																																																																																			
<table border="1"> <thead> <tr> <th>t_{N1}, t_{N2}, d, D [mm]</th> <th>1,50</th> <th>2,00</th> <th>2,50</th> <th>3,00</th> <th colspan="5">t_{II} [mm]</th> <th></th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> <th>3,50</th> <th>4,00</th> <th>4,50</th> <th>5,00</th> <th>—</th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="8">$V_{R,k}$ [kN]</td> <td>0,40</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>1,53</td> 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<td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>—</td> </tr> <tr> <td>60</td> <td>6,0</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>—</td> </tr> <tr> <td>70</td> <td>7,0</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>—</td> </tr> <tr> <td>80</td> <td>8,0</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>—</td> </tr> <tr> <td>90</td> <td>9,0</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>—</td> </tr> <tr> <td>≥ 100</td> <td>10,0</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>—</td> </tr> <tr> <td>$N_{R,k,II}$ [kN]</td> <td>1,39</td> <td>2,86</td> <td>4,32</td> <td>5,79</td> <td>7,25</td> <td>8,71</td> <td>8,71</td> <td>8,71</td> <td>—</td> <td></td> </tr> </tbody> </table>	t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]											3,50	4,00	4,50	5,00	—		$V_{R,k}$ [kN]	0,40	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	—	0,50	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	—	0,55	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	—	0,60	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—	0,63	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—	0,75	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	—	0,88	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	—	1,00	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	—	$N_{R,k}$ [kN]	0,40	1,39	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—	0,50	1,39	1,63	1,63	1,63	1,63	1,63	1,63	1,63	—	0,55	1,39	2,03	2,03	2,03	2,03	2,03	2,03	2,03	—	0,60	1,39	2,43	2,43	2,43	2,43	2,43	2,43	2,43	—	0,63	1,39	2,68	2,68	2,68	2,68	2,68	2,68	2,68	—	0,75	1,39	2,86	3,64	3,64	3,64	3,64	3,64	3,64	—	0,88	1,39	2,86	4,04	4,04	4,04	4,04	4,04	4,04	—	1,00	1,39	2,86	4,32	4,41	4,41	4,41	4,41	4,41	—	u [mm]	40	4,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	—	50	5,0	2,8	2,8	2,8	2,8	2,8	2,8	2,8	—	60	6,0	3,5	3,5	3,5	3,5	3,5	3,5	3,5	—	70	7,0	4,1	4,1	4,1	4,1	4,1	4,1	4,1	—	80	8,0	4,7	4,7	4,7	4,7	4,7	4,7	4,7	—	90	9,0	5,3	5,3	5,3	5,3	5,3	5,3	5,3	—	≥ 100	10,0	5,8	5,8	5,8	5,8	5,8	5,8	5,8	—	$N_{R,k,II}$ [kN]	1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	—		No additional regulations.									
t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]																																																																																																																																																																																																																																																																															
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Annex 4:
ETA-13/0179, Annex 7

	<p>Material: Fastener: carbon steel, case hardened and coated Washer: aluminium alloy EN AW-5754 - EN 485 Component I: S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346 Component II: S235, S275, S355, S420 - EN 10025-1, S280GD, S320GD, S350GD, S390GD, S420GD, S450GD - EN 10346</p>																																																																																																																																																																																																																																																																							
<p>Drilling capacity: $\Sigma t_i \leq 6,00$ mm</p>																																																																																																																																																																																																																																																																								
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<table border="1"> <thead> <tr> <th>t_{N1}, t_{N2}, d, D [mm]</th> <th>1,50</th> <th>2,00</th> <th>2,50</th> <th>3,00</th> <th colspan="5">t_{II} [mm]</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <th>3,50</th> <th>4,00</th> <th>4,50</th> <th>5,00</th> <th>—</th> </tr> </thead> <tbody> <tr> <td rowspan="8">$V_{R,k}$ [kN]</td> <td>0,40</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>0,79</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>—</td> </tr> <tr> <td rowspan="8">$N_{R,k}$ [kN]</td> <td>0,40</td> <td>1,39</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>1,39</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,39</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,39</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>1,39</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>1,39</td> <td>2,86</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>1,39</td> <td>2,86</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>1,39</td> <td>2,86</td> <td>4,32</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>—</td> </tr> <tr> <td rowspan="6">u [mm]</td> <td>40</td> <td>4,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>—</td> </tr> <tr> <td>50</td> <td>5,0</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>2,8</td> <td>—</td> </tr> <tr> <td>60</td> <td>6,0</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>3,5</td> <td>—</td> </tr> <tr> <td>70</td> <td>7,0</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>4,1</td> <td>—</td> </tr> <tr> <td>80</td> <td>8,0</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>—</td> </tr> <tr> <td>90</td> <td>9,0</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>—</td> </tr> <tr> <td>≥ 100</td> <td>10,0</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>5,8</td> <td>—</td> </tr> <tr> <td>$N_{R,k,II}$ [kN]</td> <td>1,39</td> <td>2,86</td> <td>4,32</td> <td>5,79</td> <td>7,25</td> <td>8,71</td> <td>8,71</td> <td>8,71</td> <td>—</td> </tr> </tbody> </table>		t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]										3,50	4,00	4,50	5,00	—	$V_{R,k}$ [kN]	0,40	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	—	0,50	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	—	0,55	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	—	0,60	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—	0,63	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—	0,75	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	—	0,88	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	—	1,00	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	—	$N_{R,k}$ [kN]	0,40	1,39	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—	0,50	1,39	1,79	1,79	1,79	1,79	1,79	1,79	1,79	—	0,55	1,39	2,20	2,20	2,20	2,20	2,20	2,20	2,20	—	0,60	1,39	2,61	2,61	2,61	2,61	2,61	2,61	2,61	—	0,63	1,39	2,86	2,86	2,86	2,86	2,86	2,86	2,86	—	0,75	1,39	2,86	3,85	3,85	3,85	3,85	3,85	3,85	—	0,88	1,39	2,86	4,15	4,15	4,15	4,15	4,15	4,15	—	1,00	1,39	2,86	4,32	4,42	4,42	4,42	4,42	4,42	—	u [mm]	40	4,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	—	50	5,0	2,8	2,8	2,8	2,8	2,8	2,8	2,8	—	60	6,0	3,5	3,5	3,5	3,5	3,5	3,5	3,5	—	70	7,0	4,1	4,1	4,1	4,1	4,1	4,1	4,1	—	80	8,0	4,7	4,7	4,7	4,7	4,7	4,7	4,7	—	90	9,0	5,3	5,3	5,3	5,3	5,3	5,3	5,3	—	≥ 100	10,0	5,8	5,8	5,8	5,8	5,8	5,8	5,8	—	$N_{R,k,II}$ [kN]	1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	—
t_{N1}, t_{N2}, d, D [mm]	1,50	2,00	2,50	3,00	t_{II} [mm]																																																																																																																																																																																																																																																																			
					3,50	4,00	4,50	5,00	—																																																																																																																																																																																																																																																															
$V_{R,k}$ [kN]	0,40	0,79	0,79	0,79	0,79	0,79	0,79	0,79	0,79	—																																																																																																																																																																																																																																																														
	0,50	0,97	0,97	0,97	0,97	0,97	0,97	0,97	0,97	—																																																																																																																																																																																																																																																														
	0,55	1,19	1,19	1,19	1,19	1,19	1,19	1,19	1,19	—																																																																																																																																																																																																																																																														
	0,60	1,40	1,40	1,40	1,40	1,40	1,40	1,40	1,40	—																																																																																																																																																																																																																																																														
	0,63	1,53	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—																																																																																																																																																																																																																																																														
	0,75	2,05	2,05	2,05	2,05	2,05	2,05	2,05	2,05	—																																																																																																																																																																																																																																																														
	0,88	2,29	2,29	2,29	2,29	2,29	2,29	2,29	2,29	—																																																																																																																																																																																																																																																														
	1,00	2,51	2,51	2,51	2,51	2,51	2,51	2,51	2,51	—																																																																																																																																																																																																																																																														
$N_{R,k}$ [kN]	0,40	1,39	1,53	1,53	1,53	1,53	1,53	1,53	1,53	—																																																																																																																																																																																																																																																														
	0,50	1,39	1,79	1,79	1,79	1,79	1,79	1,79	1,79	—																																																																																																																																																																																																																																																														
	0,55	1,39	2,20	2,20	2,20	2,20	2,20	2,20	2,20	—																																																																																																																																																																																																																																																														
	0,60	1,39	2,61	2,61	2,61	2,61	2,61	2,61	2,61	—																																																																																																																																																																																																																																																														
	0,63	1,39	2,86	2,86	2,86	2,86	2,86	2,86	2,86	—																																																																																																																																																																																																																																																														
	0,75	1,39	2,86	3,85	3,85	3,85	3,85	3,85	3,85	—																																																																																																																																																																																																																																																														
	0,88	1,39	2,86	4,15	4,15	4,15	4,15	4,15	4,15	—																																																																																																																																																																																																																																																														
	1,00	1,39	2,86	4,32	4,42	4,42	4,42	4,42	4,42	—																																																																																																																																																																																																																																																														
u [mm]	40	4,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	—																																																																																																																																																																																																																																																														
	50	5,0	2,8	2,8	2,8	2,8	2,8	2,8	2,8	—																																																																																																																																																																																																																																																														
	60	6,0	3,5	3,5	3,5	3,5	3,5	3,5	3,5	—																																																																																																																																																																																																																																																														
	70	7,0	4,1	4,1	4,1	4,1	4,1	4,1	4,1	—																																																																																																																																																																																																																																																														
	80	8,0	4,7	4,7	4,7	4,7	4,7	4,7	4,7	—																																																																																																																																																																																																																																																														
	90	9,0	5,3	5,3	5,3	5,3	5,3	5,3	5,3	—																																																																																																																																																																																																																																																														
≥ 100	10,0	5,8	5,8	5,8	5,8	5,8	5,8	5,8	—																																																																																																																																																																																																																																																															
$N_{R,k,II}$ [kN]	1,39	2,86	4,32	5,79	7,25	8,71	8,71	8,71	—																																																																																																																																																																																																																																																															
<p>No additional regulations.</p>																																																																																																																																																																																																																																																																								
<p style="text-align: center;">Self drilling screw</p> <hr/> <p style="text-align: center;">Hilti S-CD 63 C 5,5 x L Hilti S-CD 73 C 5,5 x L with hexagon head and sealing washer $\geq \text{Ø}19$ mm</p> <div style="float: right; text-align: right;">Annex 7</div>																																																																																																																																																																																																																																																																								

Annex 5:
ETA-13/0179, Annex 12

	<p>Material:</p> <p>Fastener: carbon steel, case hardened and coated</p> <p>Washer: aluminium alloy EN AW-5754 - EN 485</p> <p>Component I: S280GD, S320GD, S350GD - EN 10346</p> <p>Component II: S235, S275, S355 - EN 10025-1 S280GD, S320GD, S350GD - EN 10346</p>											
	<p>Drilling capacity: $\Sigma t_i \leq 15,00$ mm</p>											
	<p>Timber substructures: no performance determined</p>											
	t_{N1}, t_{N2}, d, D [mm]	4,00	5,00	6,00	7,00	t_{II} [mm]						
$V_{R,k}$ [kN]	0,40	0,80	0,80	0,80	0,80	0,80	0,80	—	—	—		
	0,50	0,97	0,97	0,97	0,97	0,97	0,97	—	—	—		
	0,55	1,19	1,19	1,19	1,19	1,19	1,19	—	—	—		
	0,60	1,40	1,40	1,40	1,40	1,40	1,40	—	—	—		
	0,63	1,53	1,53	1,53	1,53	1,53	1,53	—	—	—		
	0,75	2,05	2,05	2,05	2,05	2,05	2,05	—	—	—		
	0,88	2,29	2,29	2,29	2,29	2,29	2,29	—	—	—		
	1,00	2,51	2,51	2,51	2,51	2,51	2,51	—	—	—		
$N_{R,k}$ [kN]	0,40	1,40	1,40	1,40	1,40	1,40	1,40	—	—	—		
	0,50	1,63	1,63	1,63	1,63	1,63	1,63	—	—	—		
	0,55	2,03	2,03	2,03	2,03	2,03	2,03	—	—	—		
	0,60	2,43	2,43	2,43	2,43	2,43	2,43	—	—	—		
	0,63	2,68	2,68	2,68	2,68	2,68	2,68	—	—	—		
	0,75	3,64	3,64	3,64	3,64	3,64	3,64	—	—	—		
	0,88	4,04	4,04	4,04	4,04	4,04	4,04	—	—	—		
	1,00	4,41	4,41	4,41	4,41	4,41	4,41	—	—	—		
u [mm]	40	2,0	2,0	2,0	2,0	2,0	2,0	—	—	—		
	50	3,0	3,0	3,0	3,0	3,0	3,0	—	—	—		
	60	4,0	4,0	4,0	4,0	4,0	4,0	—	—	—		
	70	4,7	4,7	4,7	4,7	4,7	4,7	—	—	—		
	80	5,3	5,3	5,3	5,3	5,3	5,3	—	—	—		
	90	6,0	6,0	6,0	6,0	6,0	6,0	—	—	—		
	≥ 100	6,7	6,7	6,7	6,7	6,7	6,7	—	—	—		
$N_{R,k,II}$ [kN]	7,94	7,94	7,94	7,94	7,94	7,94	7,94	—	—	—		
No additional regulations.												
Self drilling screw											Annex 12	
Hilti S-CDH 55 C 5,5 x L with hexagon head and sealing washer $\varnothing 16$ mm												

Annex 6:
ETA-13/0179, Annex 13

	<p>Material:</p> <p>Fastener: carbon steel, case hardened and coated</p> <p>Washer: aluminium alloy EN AW-5754 - EN 485</p> <p>Component I: S280GD, S320GD, S350GD - EN 10346</p> <p>Component II: S235, S275, S355 - EN 10025-1 S280GD, S320GD, S350GD - EN 10346</p>																																																																																																																																																																																																																																																																															
	<p>Drilling capacity: $\Sigma t_i \leq 15,00$ mm</p>																																																																																																																																																																																																																																																																															
	<p>Timber substructures: no performance determined</p>																																																																																																																																																																																																																																																																															
<table border="1"> <thead> <tr> <th>t_{N1}, t_{N2}, d, D [mm]</th> <th>4,00</th> <th>5,00</th> <th>6,00</th> <th>7,00</th> <th colspan="4">t_{II} [mm]</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <th>8,00</th> <th>$\geq 10,0$</th> <th>—</th> <th>—</th> <th>—</th> </tr> </thead> <tbody> <tr> <td rowspan="8">$V_{R,k}$ [kN]</td> <td>0,40</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td rowspan="8">$N_{R,k}$ [kN]</td> <td>0,40</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td rowspan="7">u [mm]</td> <td>40</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>50</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>60</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>70</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>80</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>90</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>≥ 100</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>$N_{R,k,II}$ [kN]</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>—</td> <td>—</td> <td>—</td> </tr> </tbody> </table>	t_{N1}, t_{N2}, d, D [mm]	4,00	5,00	6,00	7,00	t_{II} [mm]									8,00	$\geq 10,0$	—	—	—	$V_{R,k}$ [kN]	0,40	0,80	0,80	0,80	0,80	0,80	0,80	—	—	—	0,50	0,97	0,97	0,97	0,97	0,97	0,97	—	—	—	0,55	1,19	1,19	1,19	1,19	1,19	1,19	—	—	—	0,60	1,40	1,40	1,40	1,40	1,40	1,40	—	—	—	0,63	1,53	1,53	1,53	1,53	1,53	1,53	—	—	—	0,75	2,05	2,05	2,05	2,05	2,05	2,05	—	—	—	0,88	2,29	2,29	2,29	2,29	2,29	2,29	—	—	—	1,00	2,51	2,51	2,51	2,51	2,51	2,51	—	—	—	$N_{R,k}$ [kN]	0,40	1,53	1,53	1,53	1,53	1,53	1,53	—	—	—	0,50	1,79	1,79	1,79	1,79	1,79	1,79	—	—	—	0,55	2,20	2,20	2,20	2,20	2,20	2,20	—	—	—	0,60	2,61	2,61	2,61	2,61	2,61	2,61	—	—	—	0,63	2,86	2,86	2,86	2,86	2,86	2,86	—	—	—	0,75	3,85	3,85	3,85	3,85	3,85	3,85	—	—	—	0,88	4,15	4,15	4,15	4,15	4,15	4,15	—	—	—	1,00	4,42	4,42	4,42	4,42	4,42	4,42	—	—	—	u [mm]	40	2,0	2,0	2,0	2,0	2,0	2,0	—	—	—	50	3,0	3,0	3,0	3,0	3,0	3,0	—	—	—	60	4,0	4,0	4,0	4,0	4,0	4,0	—	—	—	70	4,7	4,7	4,7	4,7	4,7	4,7	—	—	—	80	5,3	5,3	5,3	5,3	5,3	5,3	—	—	—	90	6,0	6,0	6,0	6,0	6,0	6,0	—	—	—	≥ 100	6,7	6,7	6,7	6,7	6,7	6,7	—	—	—	$N_{R,k,II}$ [kN]	7,94	7,94	7,94	7,94	7,94	7,94	—	—	—	No additional regulations.									
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Hilti S-CDH 65 C 5,5 x L Hilti S-CDH 75 C 5,5 x L with hexagon head and sealing washer $\geq \text{Ø}19$ mm											Annex 13																																																																																																																																																																																																																																																																					

Annex 7:
ETA-13/0179, Annex 14

	<p>Material: Fastener: carbon steel, case hardened and coated Washer: aluminium alloy EN AW-5754 - EN 485 Component I: S280GD, S320GD, S350GD - EN 10346 Component II: S235, S275, S355 - EN 10025-1 S280GD, S320GD, S350GD - EN 10346</p>																																																																																																																																																																																																																																																																													
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Annex 8:
ETA-13/0179, Annex 15

	<p>Material: Fastener: carbon steel, case hardened and coated Washer: aluminium alloy EN AW-5754 - EN 485 Component I: S280GD, S320GD, S350GD - EN 10346 Component II: S235, S275, S355 - EN 10025-1 S280GD, S320GD, S350GD - EN 10346</p>																																																																																																																																																																																																																																																																							
	<p>Drilling capacity: $\Sigma t_i \leq 15,00$ mm</p>																																																																																																																																																																																																																																																																							
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	<table border="1"> <thead> <tr> <th>t_{N1}, t_{N2}, d, D [mm]</th> <th>4,00</th> <th>5,00</th> <th>6,00</th> <th>7,00</th> <th colspan="4">t_i [mm]</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <th>8,00</th> <th>$\geq 10,0$</th> <th>—</th> <th>—</th> <th>—</th> </tr> </thead> <tbody> <tr> <td rowspan="8">$V_{R,k}$ [kN]</td> <td>0,40</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>0,80</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>0,97</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>1,19</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>1,40</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>2,05</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>2,29</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>2,51</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td rowspan="8">$N_{R,k}$ [kN]</td> <td>0,40</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>1,53</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,50</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>1,79</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,55</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>2,20</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,60</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>2,61</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,63</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>2,86</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,75</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>3,85</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>0,88</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>4,15</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>1,00</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>4,42</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td rowspan="6">u [mm]</td> <td>40</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>2,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>50</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>3,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>60</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>4,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>70</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>4,7</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>80</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>5,3</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>90</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>6,0</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>≥ 100</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>6,7</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>$N_{R,k,II}$ [kN]</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>7,94</td> <td>—</td> <td>—</td> <td>—</td> </tr> </tbody> </table>	t_{N1}, t_{N2}, d, D [mm]	4,00	5,00	6,00	7,00	t_i [mm]									8,00	$\geq 10,0$	—	—	—	$V_{R,k}$ [kN]	0,40	0,80	0,80	0,80	0,80	0,80	0,80	—	—	—	0,50	0,97	0,97	0,97	0,97	0,97	0,97	—	—	—	0,55	1,19	1,19	1,19	1,19	1,19	1,19	—	—	—	0,60	1,40	1,40	1,40	1,40	1,40	1,40	—	—	—	0,63	1,53	1,53	1,53	1,53	1,53	1,53	—	—	—	0,75	2,05	2,05	2,05	2,05	2,05	2,05	—	—	—	0,88	2,29	2,29	2,29	2,29	2,29	2,29	—	—	—	1,00	2,51	2,51	2,51	2,51	2,51	2,51	—	—	—	$N_{R,k}$ [kN]	0,40	1,53	1,53	1,53	1,53	1,53	1,53	—	—	—	0,50	1,79	1,79	1,79	1,79	1,79	1,79	—	—	—	0,55	2,20	2,20	2,20	2,20	2,20	2,20	—	—	—	0,60	2,61	2,61	2,61	2,61	2,61	2,61	—	—	—	0,63	2,86	2,86	2,86	2,86	2,86	2,86	—	—	—	0,75	3,85	3,85	3,85	3,85	3,85	3,85	—	—	—	0,88	4,15	4,15	4,15	4,15	4,15	4,15	—	—	—	1,00	4,42	4,42	4,42	4,42	4,42	4,42	—	—	—	u [mm]	40	2,0	2,0	2,0	2,0	2,0	2,0	—	—	—	50	3,0	3,0	3,0	3,0	3,0	3,0	—	—	—	60	4,0	4,0	4,0	4,0	4,0	4,0	—	—	—	70	4,7	4,7	4,7	4,7	4,7	4,7	—	—	—	80	5,3	5,3	5,3	5,3	5,3	5,3	—	—	—	90	6,0	6,0	6,0	6,0	6,0	6,0	—	—	—	≥ 100	6,7	6,7	6,7	6,7	6,7	6,7	—	—	—	$N_{R,k,II}$ [kN]	7,94	7,94	7,94	7,94	7,94	7,94	7,94	—	—	—
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