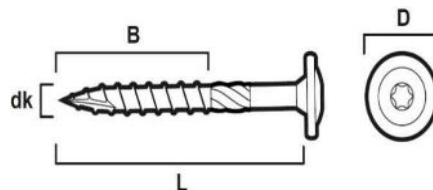


# LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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## Conditions for tabulated load capacity

The tabulated values are calculated in accordance with Eurocode 5 (EN 1995-1-1:2004 incl. AC:2006, A1:2008 and A2:2014). The calculation assumes that the entire threaded part B is screwed into the underlying timber part and that it has at minimum the same thickness, i.e.  $t_2 \geq B$ . Furthermore it is assumed the two timber parts are made of the same timber quality class (e.g. C24). If the screw is subjected to both axial and shear load the total load capacity must be verified. The tabulated loads are for one screw, if more screws are used a reduction may be needed depending on spacing. The final design should consider edge and spacing distances.

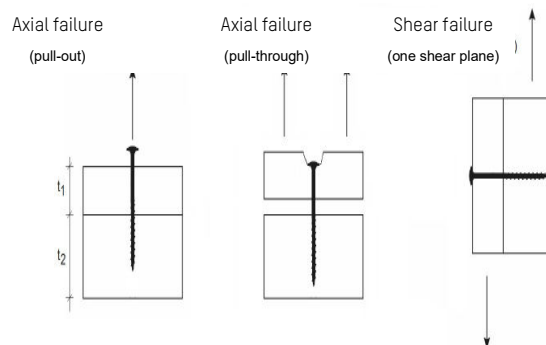
## Recommended load

The recommended load given in unit [kg] can be applied directly since all safety factors have been considered incl. a factor on the applied load ( $\gamma = 1.4$ ). It is calculated for a permanent load and service class 3 (acc. to Eurocode 5).

## Characteristic resistance

The characteristic resistance given in unit [kN] is intended for an engineer that wants to do a detailed analysis of the timber connection using the appropriate partial coefficients for design resistance based on load duration and service class in accordance with Eurocode 5 eq. (2.17):

$$R_d = k_{mod} \frac{R_k}{\gamma_M}$$



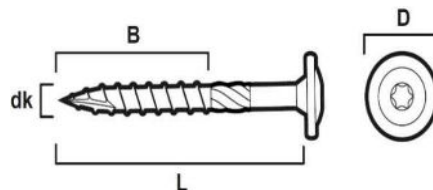
*All information in this document is given in accordance with known facts and information at the time of writing. The information is subject to change without further notification. The document is updated continuously in conjunction with regular revision or in the event of major-specific technical changes.*

*All advice given by ESSVE should only be seen as guidance and does not mean that ESSVE can be held responsible for the advice provided. It is always the customer's own responsibility to decide on the choice of product, usage, application, etc. The supplier's advice is only a part of the customer's basis for decision making.*

## LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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### Recommended load

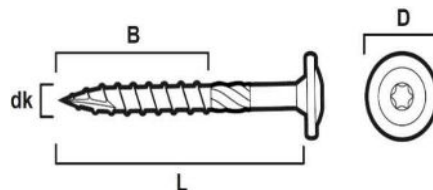
Intended for craftsmen

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>1</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through) |     | Shear direction<br>(one shear plane) |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------|-----|--------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | F <sub>ax,rec</sub><br>[kg]            |     | F <sub>v,rec</sub><br>[kg]           |     |
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                    | C24 | C14                                  | C24 |
| 113 103  | ✓                      | 6.0 × 50                        | 40                             | 3,9                                                    | 15,3                              | 10                                                             | 40                                                            | 50                                     | 60  | 15                                   | 20  |
| 113 105  | ✓                      | 6.0 × 60                        | 40                             | 3,9                                                    | 15,3                              | 20                                                             | 40                                                            | 50                                     | 60  | 35                                   | 40  |
| 113 107  | ✓                      | 6.0 × 70                        | 40                             | 3,9                                                    | 15,3                              | 30                                                             | 40                                                            | 50                                     | 60  | 40                                   | 45  |
| 113 109  | ✓                      | 6.0 × 80                        | 40                             | 3,9                                                    | 15,3                              | 40                                                             | 40                                                            | 50                                     | 60  | 40                                   | 50  |
| 113 111  | ✓                      | 6.0 × 90                        | 50                             | 3,9                                                    | 15,3                              | 40                                                             | 50                                                            | 65                                     | 75  | 45                                   | 55  |
| 113 113  | ✓                      | 6.0 × 100                       | 50                             | 3,9                                                    | 15,3                              | 50                                                             | 50                                                            | 65                                     | 75  | 50                                   | 55  |
| 113 115  | ✓                      | 6.0 × 120                       | 75                             | 3,9                                                    | 15,3                              | 45                                                             | 75                                                            | 80                                     | 95  | 55                                   | 60  |
| 113 117  | ✓                      | 6.0 × 140                       | 75                             | 3,9                                                    | 15,3                              | 65                                                             | 75                                                            | 80                                     | 95  | 55                                   | 60  |
| 113 119  | ✓                      | 6.0 × 160                       | 75                             | 3,9                                                    | 15,3                              | 85                                                             | 75                                                            | 80                                     | 95  | 55                                   | 60  |
| 113 121  | ✓                      | 6.0 × 180                       | 75                             | 3,9                                                    | 15,3                              | 105                                                            | 75                                                            | 80                                     | 95  | 55                                   | 60  |
| 113 123  | ✓                      | 6.0 × 200                       | 75                             | 3,9                                                    | 15,3                              | 125                                                            | 75                                                            | 80                                     | 95  | 55                                   | 60  |
| 113 127  | ✓                      | 6.0 × 220                       | 75                             | 3,9                                                    | 15,3                              | 145                                                            | 75                                                            | 80                                     | 95  | 55                                   | 60  |

# LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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## Recommended load

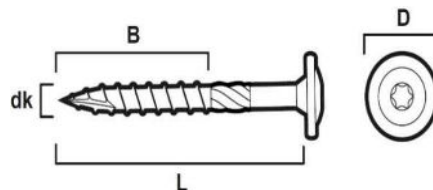
Intended for craftsmen

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>1</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through) |     | Shear direction<br>(one shear plane) |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------|-----|--------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | F <sub>ax,rec</sub><br>[kg]            |     | F <sub>v,rec</sub><br>[kg]           |     |
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                    | C24 | C14                                  | C24 |
| 113 131  | ✓                      | 8.0 × 50                        | 45                             | 5,3                                                    | 22,0                              | 5                                                              | 45                                                            | 90                                     | 105 | 10                                   | 10  |
| 113 133  | ✓                      | 8.0 × 60                        | 50                             | 5,3                                                    | 22,0                              | 10                                                             | 50                                                            | 100                                    | 115 | 20                                   | 25  |
| 113 135  | ✓                      | 8.0 × 70                        | 50                             | 5,3                                                    | 22,0                              | 20                                                             | 50                                                            | 100                                    | 115 | 45                                   | 55  |
| 113 137  | ✓                      | 8.0 × 80                        | 50                             | 5,3                                                    | 22,0                              | 30                                                             | 50                                                            | 100                                    | 115 | 65                                   | 75  |
| 113 139  | ✓                      | 8.0 × 90                        | 50                             | 5,3                                                    | 22,0                              | 40                                                             | 50                                                            | 100                                    | 115 | 65                                   | 80  |
| 113 141  | ✓                      | 8.0 × 100                       | 50                             | 5,3                                                    | 22,0                              | 50                                                             | 50                                                            | 100                                    | 115 | 70                                   | 85  |
| 113 143  | ✓                      | 8.0 × 120                       | 80                             | 5,3                                                    | 22,0                              | 40                                                             | 80                                                            | 125                                    | 145 | 75                                   | 85  |
| 113 147  | ✓                      | 8.0 × 140                       | 80                             | 5,3                                                    | 22,0                              | 60                                                             | 80                                                            | 125                                    | 145 | 85                                   | 100 |
| 113 151  | ✓                      | 8.0 × 160                       | 80                             | 5,3                                                    | 22,0                              | 80                                                             | 80                                                            | 125                                    | 145 | 90                                   | 100 |
| 113 152  | ✓                      | 8.0 × 180                       | 80                             | 5,3                                                    | 22,0                              | 100                                                            | 80                                                            | 125                                    | 145 | 90                                   | 100 |
| 113 153  | ✓                      | 8.0 × 200                       | 100                            | 5,3                                                    | 22,0                              | 100                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |
| 113 154  | ✓                      | 8.0 × 220                       | 100                            | 5,3                                                    | 22,0                              | 120                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |
| 113 155  | ✓                      | 8.0 × 240                       | 100                            | 5,3                                                    | 22,0                              | 140                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |
| 113 097  | ✓                      | 8.0 × 280                       | 100                            | 5,3                                                    | 22,0                              | 180                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |
| 113 157  | ✓                      | 8.0 × 300                       | 100                            | 5,3                                                    | 22,0                              | 200                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |
| 113 099  | ✓                      | 8.0 × 320                       | 100                            | 5,3                                                    | 22,0                              | 220                                                            | 100                                                           | 125                                    | 145 | 90                                   | 100 |

## LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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### Recommended load

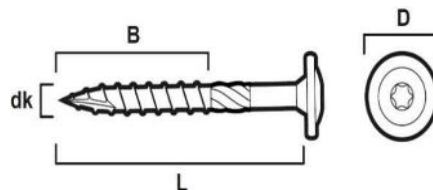
Intended for craftsmen

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>1</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through)<br><br>F <sub>ax,rec</sub><br>[kg] |     | Shear direction<br>(one shear plane)<br><br>F <sub>v,rec</sub><br>[kg] |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------|-----|------------------------------------------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                                                       | C24 | C14                                                                    | C24 |
| 113 161  | ✓                      | 10.0 × 50                       | 45                             | 6,4                                                    | 25,0                              | 5                                                              | 45                                                            | 95                                                                        | 110 | 10                                                                     | 15  |
| 113 163  | ✓                      | 10.0 × 60                       | 55                             | 6,4                                                    | 25,0                              | 5                                                              | 55                                                            | 120                                                                       | 140 | 10                                                                     | 15  |
| 113 165  | ✓                      | 10.0 × 70                       | 60                             | 6,4                                                    | 25,0                              | 10                                                             | 60                                                            | 130                                                                       | 150 | 25                                                                     | 35  |
| 113 166  | ✓                      | 10.0 × 80                       | 60                             | 6,4                                                    | 25,0                              | 20                                                             | 60                                                            | 130                                                                       | 150 | 55                                                                     | 70  |
| 113 167  | ✓                      | 10.0 × 100                      | 60                             | 6,4                                                    | 25,0                              | 40                                                             | 60                                                            | 130                                                                       | 150 | 100                                                                    | 115 |
| 113 169  | ✓                      | 10.0 × 120                      | 80                             | 6,4                                                    | 25,0                              | 40                                                             | 80                                                            | 175                                                                       | 200 | 110                                                                    | 125 |
| 113 171  | ✓                      | 10.0 × 140                      | 80                             | 6,4                                                    | 25,0                              | 60                                                             | 80                                                            | 175                                                                       | 200 | 125                                                                    | 145 |
| 113 173  | ✓                      | 10.0 × 160                      | 80                             | 6,4                                                    | 25,0                              | 80                                                             | 80                                                            | 175                                                                       | 200 | 135                                                                    | 150 |
| 113 175  | ✓                      | 10.0 × 180                      | 80                             | 6,4                                                    | 25,0                              | 100                                                            | 80                                                            | 175                                                                       | 200 | 135                                                                    | 150 |
| 113 177  | ✓                      | 10.0 × 200                      | 100                            | 6,4                                                    | 25,0                              | 100                                                            | 100                                                           | 205                                                                       | 235 | 145                                                                    | 160 |
| 113 179  | ✓                      | 10.0 × 220                      | 100                            | 6,4                                                    | 25,0                              | 120                                                            | 100                                                           | 205                                                                       | 235 | 145                                                                    | 160 |
| 113 181  | ✓                      | 10.0 × 240                      | 100                            | 6,4                                                    | 25,0                              | 140                                                            | 100                                                           | 205                                                                       | 235 | 145                                                                    | 160 |

## LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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### Characteristic resistance

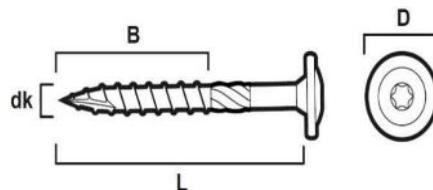
Intended for engineers

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>1</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through)<br><br>F <sub>ax,Rk</sub><br>[kN] |     | Shear direction<br>(one shear plane)<br><br>F <sub>v,Rk</sub><br>[kN] |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|-----|-----------------------------------------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                                                      | C24 | C14                                                                   | C24 |
| 113 103  | ✓                      | 6.0 × 50                        | 40                             | 3,9                                                    | 14,5                              | 10                                                             | 40                                                            | 1,9                                                                      | 2,2 | 0,7                                                                   | 0,8 |
| 113 105  | ✓                      | 6.0 × 60                        | 40                             | 3,9                                                    | 14,5                              | 20                                                             | 40                                                            | 1,9                                                                      | 2,2 | 1,3                                                                   | 1,5 |
| 113 107  | ✓                      | 6.0 × 70                        | 40                             | 3,9                                                    | 14,5                              | 30                                                             | 40                                                            | 1,9                                                                      | 2,2 | 1,4                                                                   | 1,7 |
| 113 109  | ✓                      | 6.0 × 80                        | 50                             | 3,9                                                    | 14,5                              | 40                                                             | 40                                                            | 1,9                                                                      | 2,2 | 1,6                                                                   | 1,9 |
| 113 111  | ✓                      | 6.0 × 90                        | 50                             | 3,9                                                    | 14,5                              | 40                                                             | 50                                                            | 2,4                                                                      | 2,8 | 1,8                                                                   | 2,0 |
| 113 113  | ✓                      | 6.0 × 100                       | 75                             | 3,9                                                    | 14,5                              | 50                                                             | 50                                                            | 2,4                                                                      | 2,8 | 1,9                                                                   | 2,1 |
| 113 115  | ✓                      | 6.0 × 120                       | 75                             | 3,9                                                    | 14,5                              | 45                                                             | 75                                                            | 3,0                                                                      | 3,5 | 2,0                                                                   | 2,3 |
| 113 117  | ✓                      | 6.0 × 140                       | 75                             | 3,9                                                    | 14,5                              | 65                                                             | 75                                                            | 3,0                                                                      | 3,5 | 2,1                                                                   | 2,3 |
| 113 119  | ✓                      | 6.0 × 160                       | 75                             | 3,9                                                    | 14,5                              | 85                                                             | 75                                                            | 3,0                                                                      | 3,5 | 2,1                                                                   | 2,3 |
| 113 121  | ✓                      | 6.0 × 180                       | 75                             | 3,9                                                    | 14,5                              | 105                                                            | 75                                                            | 3,0                                                                      | 3,5 | 2,1                                                                   | 2,3 |
| 113 123  | ✓                      | 6.0 × 200                       | 75                             | 3,9                                                    | 14,5                              | 125                                                            | 75                                                            | 3,0                                                                      | 3,5 | 2,1                                                                   | 2,3 |
| 113 127  | ✓                      | 6.0 × 220                       | 75                             | 3,9                                                    | 14,5                              | 145                                                            | 75                                                            | 3,0                                                                      | 3,5 | 2,1                                                                   | 2,3 |

# LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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## Characteristic resistance

Intended for engineers

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>1</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through) |     | Shear direction<br>(one shear plane) |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------|-----|--------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | F <sub>ax,Rk</sub>                     |     | F <sub>v,Rk</sub>                    |     |
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | [kN]                                   |     | [kN]                                 |     |
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                    | C24 | C14                                  | C24 |
| 113 131  | ✓                      | 8.0 × 50                        | 45                             | 5,3                                                    | 22,0                              | 5                                                              | 45                                                            | 3,3                                    | 3,8 | 0,4                                  | 0,5 |
| 113 133  | ✓                      | 8.0 × 60                        | 50                             | 5,3                                                    | 22,0                              | 10                                                             | 50                                                            | 3,6                                    | 4,2 | 0,8                                  | 1,0 |
| 113 135  | ✓                      | 8.0 × 70                        | 50                             | 5,3                                                    | 22,0                              | 20                                                             | 50                                                            | 3,6                                    | 4,2 | 1,6                                  | 2,0 |
| 113 137  | ✓                      | 8.0 × 80                        | 50                             | 5,3                                                    | 22,0                              | 30                                                             | 50                                                            | 3,6                                    | 4,2 | 2,3                                  | 2,8 |
| 113 139  | ✓                      | 8.0 × 90                        | 50                             | 5,3                                                    | 22,0                              | 40                                                             | 50                                                            | 3,6                                    | 4,2 | 2,5                                  | 2,9 |
| 113 141  | ✓                      | 8.0 × 100                       | 50                             | 5,3                                                    | 22,0                              | 50                                                             | 50                                                            | 3,6                                    | 4,2 | 2,6                                  | 3,1 |
| 113 143  | ✓                      | 8.0 × 120                       | 80                             | 5,3                                                    | 22,0                              | 40                                                             | 80                                                            | 4,5                                    | 5,2 | 2,8                                  | 3,2 |
| 113 147  | ✓                      | 8.0 × 140                       | 80                             | 5,3                                                    | 22,0                              | 60                                                             | 80                                                            | 4,5                                    | 5,2 | 3,2                                  | 3,7 |
| 113 151  | ✓                      | 8.0 × 160                       | 80                             | 5,3                                                    | 22,0                              | 80                                                             | 80                                                            | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 152  | ✓                      | 8.0 × 180                       | 80                             | 5,3                                                    | 22,0                              | 100                                                            | 80                                                            | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 153  | ✓                      | 8.0 × 200                       | 100                            | 5,3                                                    | 22,0                              | 100                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 154  | ✓                      | 8.0 × 220                       | 100                            | 5,3                                                    | 22,0                              | 120                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 155  | ✓                      | 8.0 × 240                       | 100                            | 5,3                                                    | 22,0                              | 140                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 097  | ✓                      | 8.0 × 280                       | 100                            | 5,3                                                    | 22,0                              | 180                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 157  | ✓                      | 8.0 × 300                       | 100                            | 5,3                                                    | 22,0                              | 200                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |
| 113 099  | ✓                      | 8.0 × 320                       | 100                            | 5,3                                                    | 22,0                              | 220                                                            | 100                                                           | 4,5                                    | 5,2 | 3,3                                  | 3,7 |

## LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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### Characteristic resistance

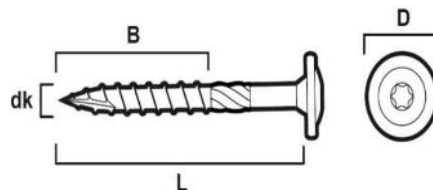
Intended for engineers

| Art. No. | CE-marking<br>EN 14592 | Dimension<br><br>dk × L<br>[mm] | Thread length<br><br>B<br>[mm] | Inner thread<br>diameter<br><br>d <sub>i</sub><br>[mm] | Head<br>diameter<br><br>D<br>[mm] | Timber tickness<br>at screw head<br><br>t <sub>1</sub><br>[mm] | Timber tickness<br>at screw tip<br><br>t <sub>2</sub><br>[mm] | Axial direction<br>(pull-out/-through)<br><br>F <sub>ax,Rk</sub><br>[kN] |     | Shear direction<br>(one shear plane)<br><br>F <sub>v,Rk</sub><br>[kN] |     |
|----------|------------------------|---------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|-----|-----------------------------------------------------------------------|-----|
|          |                        |                                 |                                |                                                        |                                   |                                                                |                                                               | C14                                                                      | C24 | C14                                                                   | C24 |
| 113 161  | ✓                      | 10.0 × 50                       | 45                             | 6,4                                                    | 25,0                              | 5                                                              | 45                                                            | 3,5                                                                      | 4,1 | 0,5                                                                   | 0,6 |
| 113 163  | ✓                      | 10.0 × 60                       | 55                             | 6,4                                                    | 25,0                              | 5                                                              | 55                                                            | 4,3                                                                      | 5,0 | 0,5                                                                   | 0,6 |
| 113 165  | ✓                      | 10.0 × 70                       | 60                             | 6,4                                                    | 25,0                              | 10                                                             | 60                                                            | 4,7                                                                      | 5,5 | 1,1                                                                   | 1,3 |
| 113 166  | ✓                      | 10.0 × 80                       | 60                             | 6,4                                                    | 25,0                              | 20                                                             | 60                                                            | 4,7                                                                      | 5,5 | 2,1                                                                   | 2,6 |
| 113 167  | ✓                      | 10.0 × 100                      | 60                             | 6,4                                                    | 25,0                              | 40                                                             | 60                                                            | 4,7                                                                      | 5,5 | 3,6                                                                   | 4,1 |
| 113 169  | ✓                      | 10.0 × 120                      | 80                             | 6,4                                                    | 25,0                              | 40                                                             | 80                                                            | 6,3                                                                      | 7,3 | 4,0                                                                   | 4,6 |
| 113 171  | ✓                      | 10.0 × 140                      | 80                             | 6,4                                                    | 25,0                              | 60                                                             | 80                                                            | 6,3                                                                      | 7,3 | 4,5                                                                   | 5,3 |
| 113 173  | ✓                      | 10.0 × 160                      | 80                             | 6,4                                                    | 25,0                              | 80                                                             | 80                                                            | 6,3                                                                      | 7,3 | 4,9                                                                   | 5,5 |
| 113 175  | ✓                      | 10.0 × 180                      | 80                             | 6,4                                                    | 25,0                              | 100                                                            | 80                                                            | 6,3                                                                      | 7,3 | 4,9                                                                   | 5,5 |
| 113 177  | ✓                      | 10.0 × 200                      | 100                            | 6,4                                                    | 25,0                              | 100                                                            | 100                                                           | 7,4                                                                      | 8,6 | 5,2                                                                   | 5,8 |
| 113 179  | ✓                      | 10.0 × 220                      | 100                            | 6,4                                                    | 25,0                              | 120                                                            | 100                                                           | 7,4                                                                      | 8,6 | 5,2                                                                   | 5,8 |
| 113 181  | ✓                      | 10.0 × 240                      | 100                            | 6,4                                                    | 25,0                              | 140                                                            | 100                                                           | 7,4                                                                      | 8,6 | 5,2                                                                   | 5,8 |

# LOAD CAPACITY

Wood screw -W (WAF) 6.0 - 10.0 mm. CorrSeal

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## Conversion factors for load-duration and service classes

The conversion factors can be used to re-calculated the recommended load in the tables for other load-durations and service classes. The conversion factors are based on the factor  $k_{mod}$  in Eurocode 5.

Load-duration classes can differ between different countries due to climate-based loads (snow, wind).

## Conversion factors from permanent load duration in service class 3

| Load-duration | Examples of loading      | Service class 1-2 | Service class 3 |
|---------------|--------------------------|-------------------|-----------------|
| Permanent     | Self-weight              | 1.20              | 1.00            |
| Long-term     | Storage                  | 1.40              | 1.10            |
| Medium-term   | Imposed floor load, snow | 1.60              | 1.30            |
| Short-term    | Snow, wind               | 1.80              | 1.40            |
| Instantaneous | Wind, accidental load    | 2.20              | 1.80            |

## Corrosion protection

Rules and best practice for corrosion protection may differ among European countries. The end-user should ensure that the corrosion protection is suitable for the current application.

## Conversion to different timber quality

Re-calculation of load capacity in the axial direction for a different timber quality (characteristic density) is possible according to the formula below:

$$F_{ax(\rho_{k,1})} \times \left( \frac{\rho_{k,2}}{\rho_{k,1}} \right)^{0,8} = F_{ax(\rho_{k,2})}$$

If for example the load capacity in axial direction is 60 kg in

C14-timber the load capacity in C35-timber is increased

$$60kg \times \left( \frac{400}{290} \right)^{0,8} = 75kg$$

| Material | Density                          |
|----------|----------------------------------|
|          | $\rho_k$<br>[kg/m <sup>3</sup> ] |
| C14      | 290                              |
| C18      | 320                              |
| C24      | 350                              |
| C30      | 380                              |
| C35      | 400                              |
| C40      | 420                              |

Re-calculation for load capacity in the shear direction in the same way is however not possible. For guidance please contact ESSVE technical support.