

# W-UR 10 SYMCON® PLASTIC FRAME ANCHOR

42.4

| Characteristic installation values: concrete & masonry |                     |                |    |    |
|--|---------------------|----------------|----|----|
| Anchor diameter [in mm]                                |                     | W-UR 10 SymCon |    |    |
| Nom. drill dia.  | $d_0$ [mm]          | 10             |    |    |
| Drill cutting dia.                                     | $d_{cut} \leq$ [mm] | 10.45          |    |    |
| Drill hole depth                                       | $h_1 \geq$ [mm]     | 50             | 60 | 80 |
| Setting depth of the anchor sleeve                     | $h_{nom}$ [mm]      | 40             | 50 | 70 |
| Through-hole in attachment part                        | $d_t \leq$ [mm]     | 10.5           |    |    |

| Performance data: Concrete  |                          |  |                |     |     |
|---|--------------------------|--|----------------|-----|-----|
| Multiple attachment of non load-bearing systems                         |                          |  |                |     |     |
| Anchor diameter   |                          | [mm]                                       | W-UR 10 SymCon |     |     |
| Setting depth of the anchor sleeve                                      | $h_{nom}$                | [mm]                                       | 40             | 50  | 70  |
| Central tensile load <sup>1)</sup><br>for single anchor or anchor group | $N_{perm} =$ C12/15 [kN] | 30 ° C <sup>2)</sup> /50 ° C <sup>3)</sup> | 1.4            | 1.6 | 2.4 |
|   |                          | 50 ° C <sup>2)</sup> /80 ° C <sup>3)</sup> | 1.2            | 1.4 | 2.0 |
|   | $N_{perm} =$ C16/20 [kN] | 30 ° C <sup>2)</sup> /50 ° C <sup>3)</sup> | 1.8            | 2.0 | 3.2 |
|   |                          | 50 ° C <sup>2)</sup> /80 ° C <sup>3)</sup> | 1.6            | 1.8 | 3.0 |
| Transverse load <sup>1)</sup><br>for single anchor or anchor group      | $V_{perm}$               | [kN]                                       | 5.3            | 5.3 | 5.3 |
| Minimum component thickness   | $h_{min}$                | [mm]                                       | 80             | 90  | 110 |
| Minimum axial spacing <sup>4)</sup>                                     | $s_{min}$ [mm]           | C12/15                                     | 70             | 70  | 70  |
|   |                          | $\geq$ C16/20                              | 50             | 50  | 50  |
| Minimum edge spacing <sup>4)</sup>                                      | $c_{min}$ [mm]           | C12/15                                     | 70             | 70  | 80  |
|   |                          | $\geq$ C16/20                              | 50             | 50  | 60  |
| Characteristic edge spacing   | $c_{ce,N}$ [mm]          | C12/15                                     | 80             | 80  | 80  |
|   |                          | $\geq$ C16/20                              | 60             | 60  | 60  |

<sup>1)</sup> The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of  $\gamma_F = 1.4$  have been taken into account. In case of a combination of tensile and transverse loads, please observe ETAG 020 Appendix C.

<sup>2)</sup> Maximum long-term temperature

<sup>3)</sup> Maximum short-term temperature

<sup>4)</sup> Permissible load must be reduced

| Performance data: Masonry <sup>4)</sup>  |  |   |   |  |      |
|--|--|---|---|--|------|
| Multiple attachment of non-load-bearing systems (temperature range: 50 ° C <sup>2)</sup> /80 ° C <sup>3)</sup> )   |  |   |   |  |      |
| For other stone types, raw densities, minimum compressive strengths, edge clearances, axle bases or temperature ranges, please refer to ETA-11/0309 approval |  |   |   |  |      |
| Stone type   | Brick format [mm]                                | Raw density class [kg/dm <sup>3</sup> ] | Minimum compressive strength [N/mm <sup>2</sup> ] | $F_{perm}$ [kN] <sup>1)5)</sup><br>(for single anchor or anchor group)<br>W-UR 10 SymCon |      |
|  |  |   |   | 50   | 70   |
| Clay brick CB,<br>EN 771-1, DIN 105  | $\geq$ NF<br>( $\geq 240 \times 115 \times 71$ ) | $\geq 1.8$                              | 10  | 0.43   | 0.21 |
|  |  |   | 20  | 0.43   | 0.34 |
|  |  |   | 28  | 0.71   | 0.57 |
|  |  |   | 36  | 0.86   | 0.71 |
|  | $\geq 3$ DF ( $\geq 240 \times 175 \times 113$ ) | $\geq 1.8$                              | 10  | -  | 0.71 |
|  |  |   | 20  | -  | 1.14 |
|  |  |   | 28  | -  | 1.57 |
| Solid sand-lime brick<br>SSLB, EN 771-2, DIN 106   | $\geq$ NF<br>( $\geq 240 \times 115 \times 71$ ) | $\geq 2.0$                              | 10  | 0.17   | 0.34 |
|  |  |   | 20  | 0.34   | 0.57 |
| Solid normal concrete<br>brick SNCB, EN 771-3, DIN 18153   | $\geq$ NF<br>( $\geq 240 \times 115 \times 71$ ) | $\geq 2.0$                              | 10  | 0.57   | 0.43 |
|  |  |   | 20  | 0.71   | 0.71 |
|  |  |   | 28  | 1.14   | 1.14 |
| Solid lightweight concrete<br>brick S and SLCB,<br>EN 771-3, DIN 18152-100<br>e.g. Bisophon, Bisotherm   | $\geq 3$ DF ( $\geq 240 \times 175 \times 113$ ) | $\geq 2.0$                              | 10  | -  | 0.86 |
|  |  |   | 20  | -  | 1.29 |

<sup>1)</sup> The part safety coefficients of the resistances regulated in the approval and a part safety coefficient of the effects of  $\gamma_F = 1.4$  have been taken into account. In case of a combination of tensile and transverse loads, please observe ETAG 020 Appendix C.

<sup>2)</sup> Maximum long-term temperature

<sup>3)</sup> Maximum short-term temperature

<sup>4)</sup> Other brick types, raw densities, minimum compressive strengths, or temperature ranges can be found in ETA-11/0309.

<sup>5)</sup> The brick geometry should be compared with the ETA-11/0309 approval.