# SM0BS001

CE

- *Unique identification code of the product-type:*
  **TURBO SMART concrete screw**

- *Type or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):*
  **See annex 1 to this document**

- *Intended uses of the construction product, in accordance with the applicable harmonized technical specification as foreseen by the manufacturer:*

| **Intended use or uses of the construction product according to ETAG 001** | |
|---|---|
| Generic type | Concrete screws “TURBO SMART” |
| Base material | Cracked and non-cracked concrete C20/25 to C50/60 acc. to EN 206-1:2003 |
| Material: | Carbon steel, zinc plated or zinc flake coating : ISO 4042 A2K ≥ 5µm<br>Stainless steel A4 (1.4401, 1.4404, 1.4571, 1.4578)<br>Stainless steel HCR (1.4529) |
| Durability | • Internal dry conditions : all type of screws<br>• Structural subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition no particular aggressive conditions exits: screw types made of stainless steel with marking A4,<br>• Structural subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition if particular aggressive conditions exits: screw types made of stainless steel with marking HCR |
| Loading | static or quasi-static loads<br>Seismic category C1 |
| Fire Resistance | F120 |
| Assumed working life | 50 years |

- *Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11 (5):*

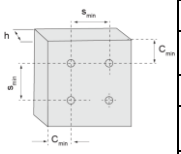
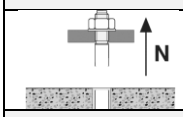
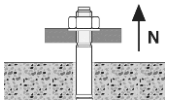
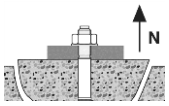
  **pgb-Polska**

- *System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:*
  **System 1**

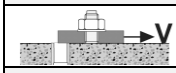
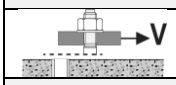
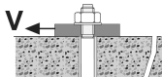
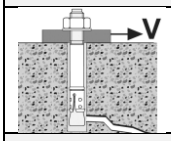
- *In case of the declaration of performance concerning a construction product for which European Technical Assessment has been issued:*

| | |
|---|---|
| ETA - 16/0308 issued by | DIBt - Deutsches Institut für Bautechnik |
| On the basis of | ETAG 001 |
| Under System | 1 |
| And issued | 1343-CPR-M 565-1/16.06 |

*Declared performance – Essential characteristics – Performances*

| TURBO SMART | | ANCHOR SIZE | | 6 | | 8 | | | 10 | | | 12 | | | 14 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $h_{nom}$ | Nominal embedment depth | [mm] | 1<br>40 | 2<br>55 | 1<br>45 | 2<br>55 | 3<br>65 | 1<br>55 | 2<br>75 | 3<br>85 | 1<br>65 | 2<br>85 | 3<br>100 | 1<br>75 | 2<br>100 | 3<br>115 |
| **Installation parameters (ETAG001)** | | | | | | | | | | | | | | | | | |
|  | $d_0$ | Nominal diameter of drill bit | [mm] | 6 | | 8 | | | 10 | | | 12 | | | 14 | | |
| | $d_s$ | Thread diameter | [mm] | 7,5 | | 10,6 | | | 12,6 | | | 14,6 | | | 16,6 | | |
| | $d_f$ | Fixture clearance hole diameter | [mm] | 8 | | 12 | | | 14 | | | 16 | | | 18 | | |
| | $T_{inst}$ | Installation torque | [Nm] | 10 | | 20 | | | 40 | | | 60 | | | 80 | | |
| | | Max. torque for impact screw driver | [Nm] | 160 | | 300 | | | 400 | | | 500 | | | 500 | | |
| | $h_1$ | Depth of drilled hole | [mm] | 45 | 60 | 55 | 65 | 75 | 65 | 85 | 95 | 75 | 95 | 110 | 85 | 110 | 125 |
| | $h_{min}$ | Min. thickness of concrete member | [mm] | 100 | | 100 | | 120 | 100 | 130 | | 120 | 130 | 150 | 130 | 150 | 170 |
| | $s_{min}$ | Minimum spacing | [mm] | 40 | | 40 | 50 | | 50 | | | 50 | | 70 | 50 | | 70 |
| | $c_{min}$ | Minimum edge distance | [mm] | 40 | | 40 | 50 | | 50 | | | 50 | | 70 | 50 | | 70 |
| **Tension load: steel failure** | | | | | | | | | | | | | | | | | |
|  | $N_{Rk,s}$ | Tension steel characteristic resistance | [kN] | 14 | | 27 | | | 45 | | | 67 | | | 94 | | |
| | $\gamma_{Ms}$ | Partial safety factor [1] | [-] | 1,4 | | | | | | | | | | | | | |
| **Tension load: pull-out failure** | | | | | | | | | | | | | | | | | |
|  | $N_{Rk,p,cr}$ | Tension characteristic resistance in CRACKED concrete C20/25 | [kN] | 2 | 4 | 5 | 9 | 12 | 9 | Pull-out failure is not decisive | | 12 | Pull-out failure is not decisive | | Pull-out failure is not decisive | | |
| | $N_{Rk,p,ucr}$ | Tension characteristic resistance in NON-CRACKED concrete C20/25 | [kN] | 4 | 9 | 7,5 | 12 | 16 | 12 | 20 | 25 | 16 | Pull-out failure is not decisive | | Pull-out failure is not decisive | | |
| | $\gamma_{Mp}$ | Partial safety factor [1] | [-] | 1,5 | | | | | | | | | | | | | |
| | $\Psi_C$ | Increasing factor C30/37 | [-] | 1,22 | | | | | | | | | | | | | |
| | | Increasing factor C40/50 | [-] | 1,41 | | | | | | | | | | | | | |
| | | Increasing factor C50/60 | [-] | 1,55 | | | | | | | | | | | | | |
| **Tension load: concrete cone and splitting failure in concrete** | | | | | | | | | | | | | | | | | |
|  | $h_{ef}$ | Effective anchorage depth | [mm] | 31 | 44 | 35 | 43 | 52 | 43 | 60 | 68 | 50 | 67 | 80 | 58 | 79 | 92 |
| | $s_{cr,N}$ | Critical spacing | [mm] | 3 x $h_{ef}$ | | | | | | | | | | | | | |
| | $s_{cr,sp}$ | Critical spacing (splitting) | [mm] | | | | | | | | | | | | | | |
| | $c_{cr,N}$ | Critical edge distance | [mm] | 1,5 x $h_{ef}$ | | | | | | | | | | | | | |
| | $c_{cr,sp}$ | Critical edge distance (splitting) | [mm] | | | | | | | | | | | | | | |
| | $\gamma_2$ | Installation safety factor [2] | [-] | 1,0 | | | | | | | | | | | | | |
| **Tension load: displacements** | | | | | | | | | | | | | | | | | |
| CRACKED concrete | $N_{cr}$ | Tension load | [kN] | 0,95 | 1,9 | 2,4 | 4,3 | 5,7 | 4,3 | 7,9 | 9,6 | 5,7 | 9,4 | 12,3 | 7,6 | 12,0 | 15,1 |
| | $\delta N0$ | Displacements under short term | [mm] | 0,3 | 0,6 | 0,6 | 0,7 | 0,8 | 0,6 | 0,5 | 0,9 | 0,9 | 0,5 | 1,0 | 0,5 | 0,8 | 0,7 |
| | $\delta N\infty$ | Displacements under long term | [mm] | 0,4 | 0,4 | 0,6 | 1,0 | 0,9 | 0,4 | 1,2 | 1,2 | 1,0 | 1,2 | 1,2 | 0,9 | 1,2 | 1,0 |
| UNCRACKED concrete | $N_{ucr}$ | Tension load | [kN] | 1,9 | 4,3 | 3,6 | 5,7 | 7,6 | 5,7 | 9,5 | 11,9 | 7,6 | 13,2 | 17,2 | 10,6 | 16,9 | 21,2 |
| | $\delta N0$ | Displacements under short term | [mm] | 0,4 | 0,6 | 0,7 | 0,9 | 0,5 | 0,7 | 1,1 | 1,0 | 1,0 | 1,1 | 1,2 | 0,9 | 1,2 | 0,8 |
| | $\delta N\infty$ | Displacements under long term | [mm] | 0,4 | 0,4 | 0,6 | 1,0 | 0,9 | 0,4 | 1,2 | 1,2 | 1,0 | 1,2 | 1,2 | 0,9 | 1,2 | 1,0 |

[1] In absence of other national regulations
[2] Parameter relevant only for design according to ETAG 001, Annex C

| TURBO SMART | | ANCHOR SIZE | | 6 | | 8 | | | 10 | | | 12 | | | 14 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $h_{nom}$ | Nominal embedment depth | [mm] | 1<br>40 | 2<br>55 | 1<br>45 | 2<br>55 | 3<br>65 | 1<br>55 | 2<br>75 | 3<br>85 | 1<br>65 | 2<br>85 | 3<br>100 | 1<br>75 | 2<br>100 | 3<br>115 |
| **Shear load: steel failure without lever arm** | | | | | | | | | | | | | | | | | |
|  | $V_{Rk,s}$ | Characteristic resistance | [kN] | 7 | | 17 | | | 34 | | | 40 | | | 56 | | |
| | $\gamma_{Ms}$ | Partial safety factor [1] | [-] | 1,25 | | | | | | | | | | | | | |
| **Shear load: steel failure with lever arm** | | | | | | | | | | | | | | | | | |
|  | $M^0_{Rk,s}$ | Characteristic resistance | [Nm] | 10 | | 26 | | | 56 | | | 113 | | | 185 | | |
| | $\gamma_{Ms}$ | Partial safety factor [1] | [-] | 1,25 | | | | | | | | | | | | | |
| **Shear load: concrete pryout failure** | | | | | | | | | | | | | | | | | |
|  | k | K-factor [2] | [-] | 1,0 | | 1,0 | | | 1,0 | 2,0 | | 1,0 | 2,0 | | 1,0 | 2,0 | |
| | $\gamma_{Mpr}$ | Partial safety factor [1] | [-] | 1,5 | | | | | | | | | | | | | |
| **Shear load: concrete edge failure** | | | | | | | | | | | | | | | | | |
|  | $l_f$ | Effective anchorage length | [mm] | 31 | 44 | 35 | 43 | 52 | 43 | 60 | 68 | 50 | 67 | 80 | 58 | 79 | 92 |
| | $d_{nom}$ | Outside anchor diameter | [mm] | 6 | | 8 | | | 10 | | | 12 | | | 14 | | |
| | $\gamma_{Mc}$ | Partial safety factor [1] | [-] | 1,5 | | | | | | | | | | | | | |
| **Shear load: displacements** | | | | | | | | | | | | | | | | | |
| CRACKED and UNCRACKED concrete | $V_{cr}$ | Shear load | [kN] | 3,3 | | 8,6 | | | 16,2 | | | 20,0 | | | 30,5 | | |
| | $\delta N0$ | Displacements under short term | [mm] | 1,55 | | 2,7 | | | 2,7 | | | 4,0 | | | 3,1 | | |
| | $\delta N\infty$ | Displacements under long term | [mm] | 3,10 | | 4,1 | | | 4,3 | | | 6,0 | | | 4,7 | | |

| **Characteristic tension resistance in cracked and non-cracked concrete C20/25 to C50/60 under fire exposure** F120 | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TURBO SMART** | **ANCHOR SIZE** | | **6** | | **8** | | | **10** | | | **12** | | | **14** | | | |
| **Nominal embedment depth $h_{nom}$ [mm]** | | | 1<br>40 | 2<br>55 | 1<br>45 | 2<br>55 | 3<br>65 | 1<br>55 | 2<br>75 | 3<br>85 | 1<br>65 | 2<br>85 | 3<br>100 | 1<br>75 | 2<br>100 | 3<br>115 |
| **Steel failure for tension and shear load** ( $F_{Rk,fi} = N_{Rk,s,fi} = V_{Rk,fi}$) | | | | | | | | | | | | | | | | | |
| **Fire resistance class** | **Characteristic resistance** | | | | | | | | | | | | | | | | |
| R30 | $F_{Rk,fi\ 30}$ | [kN] | 0,9 | | 2,4 | | | 4,4 | | | 7,3 | | | 10,3 | | | |
| R60 | $F_{Rk,fi\ 60}$ | [kN] | 0,8 | | 1,7 | | | 3,3 | | | 5,8 | | | 8,2 | | | |
| R90 | $F_{Rk,fi\ 90}$ | [kN] | 0,6 | | 1,1 | | | 2,3 | | | 4,2 | | | 5,9 | | | |
| R120 | $F_{Rk,fi\ 120}$ | [kN] | 0,4 | | 0,7 | | | 1,7 | | | 3,4 | | | 4,8 | | | |
| **Steel failure with lever arm** | | | | | | | | | | | | | | | | | |
| **Fire resistance class** | **Characteristic resistance** | | | | | | | | | | | | | | | | |
| R30 | $M^0_{Rk,s,fi\ 30}$ | [kN] | 0,7 | | 2,4 | | | 5,9 | | | 12,3 | | | 20,4 | | | |
| R60 | $M^0_{Rk,s,fi\ 60}$ | [kN] | 0,6 | | 1,8 | | | 4,5 | | | 9,7 | | | 15,9 | | | |
| R90 | $M^0_{Rk,s,fi\ 90}$ | [kN] | 0,5 | | 1,2 | | | 3,0 | | | 7,0 | | | 11,6 | | | |
| R120 | $M^0_{Rk,s,fi\ 120}$ | [kN] | 0,3 | | 0,9 | | | 2,3 | | | 5,7 | | | 9,4 | | | |
| R 30 to R 120 | Spacing $s_{cr,fi}$ | [mm] | 4 x $h_{ef}$ | | | | | | | | | | | | | | |
| | Edge distance $c_{cr,fi}$ | | 2 x $h_{ef}$ | | | | | | | | | | | | | | |

The characteristic resistance to fire exposure for pull-out failure, concrete cone failure, concrete pry-out failure and concrete edge failure shall be calculated according to TR 020 or CEN/TS 1992-4. If no value for $N_{Rk,p}$, is given, in the equation 2.4 and 2.5, TR 020 or in equation D.1 and D.2, CEN/TS 1992-4 the value of $N^0Rk.c$ shall be inserted instead of $N_{Rk,p}$

| Characteristic values for seismic category C1 | | | | | | |
|---|---|---|---|---|---|---|
| **TURBO SMART** | **ANCHOR SIZE** | | **8** | **10** | **12** | **14** |
| **Nominal embedment depth $h_{nom}$ [mm]** | | | **65** | **85** | **100** | **115** |
| **Steel failure for tension and shear load** | | | | | | |
| $N_{Rk,s,seis}$ | Characteristic load | [kN] | 27,0 | 45,0 | 67,0 | 94,0 |
| $V_{Rk,s,seis}$ | | [kN] | 8,5 | 15,3 | 21,0 | 22,4 |
| **Pull-out failure** | | | | | | |
| $N_{Rk,p,seis}$ | Characteristic tension load in cracked concrete C20/25 | [kN] | 12 | Pull-out failure is not decisive | | |
| **Concrete cone failure** | | | | | | |
| $h_{ef}$ | Effective anchorage depth | [mm] | 52 | 68 | 80 | 92 |
| $s_{cr,N}$ | Critical spacing | [mm] | 156 | 204 | 240 | 276 |
| $c_{cr,N}$ | Critical edge distance | [mm] | 78 | 102 | 120 | 138 |
| $\gamma_2$ | Installation safety factor | [-] | 1,0 | | | |
| **Concrete pryout failure** | | | | | | |
| k | k-factor | [-] | 1,0 | 2,0 | | |
| **Concrete edge failure** | | | | | | |
| $l_f = h_{ef}$ | Effective anchor length | [mm] | 52 | 68 | 80 | 92 |
| $d_{nom}$ | Outside anchor diameter | [mm] | 8 | 10 | 12 | 14 |

- *The performances of the product identified by the above identification code are in conformity with the declared performance. This declaration of performance is issued under the sole responsibility of pgb-Europe nv. Signed for and behalf of the manufacturer by:*

| Place and date of issue | Signature |
|---|---|
| Melle, 28/06/2016 | nv pgb-Europe sa<br>Gontrode Heirweg 170<br>9090 MELLE<br>BE 0425 888 396<br>Johannes Heye, product manager |

## Annex 1 : Product overview

**SMBSZ:**
**CONCRETE SCREW "TURBO SMART" WITH HEXAGON HEAD AND PRESSED-ON WASHER**


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| *5x40 | SMBSZ3050040RUS | 5902134198330 | 100 |
| *5x50 | SMBSZ3050050RUS | 5902134198347 | 100 |
| *5x60 | SMBSZ3050060RUS | 5902134198354 | 100 |
| 6x40 | SMBSZ3060040RUS | 5902134198361 | 100 |
| 6x50 | SMBSZ3060050RUS | 5902134198378 | 100 |
| 6x60 | SMBSZ3060060RUS | 5902134198385 | 100 |
| 6x80 | SMBSZ3060080RUS | 5902134198392 | 100 |
| 6x100 | SMBSZ3060100RUS | 5902134198408 | 100 |
| 8x50 | SMBSZ3080050RUS | 5902134198415 | 50 |
| 8x60 | SMBSZ3080060RUS | 5902134198422 | 50 |
| 8x70 | SMBSZ3080070RUS | 5902134198439 | 50 |
| 8x80 | SMBSZ3080080RUS | 5902134198446 | 50 |
| 8x90 | SMBSZ3080090RUS | 5902134198453 | 50 |
| 8x100 | SMBSZ3080100RUS | 5902134198460 | 50 |
| 8x120 | SMBSZ3080120RUS | 5902134198477 | 50 |
| 8x140 | SMBSZ3080140RUS | 5902134198484 | 50 |
| 10x60 | SMBSZ3100060RUS | 5902134198491 | 50 |
| 10x70 | SMBSZ3100070RUS | 5902134198507 | 50 |
| 10x80 | SMBSZ3100080RUS | 5902134198514 | 50 |
| 10x90 | SMBSZ3100090RUS | 5902134198521 | 50 |

| size | pgb code | EAN13 | |
|---|---|---|---|
| 10x100 | SMBSZ3100100RUS | 5902134198538 | 25 |
| 10x120 | SMBSZ3100120RUS | 5902134198545 | 25 |
| 10x140 | SMBSZ3100140RUS | 5902134198552 | 25 |
| 10x150 | SMBSZ3100150RUS | 5902134198569 | 25 |
| 10x160 | SMBSZ3100160RUS | 5902134198576 | 25 |
| **10x180 | SMBSZ3100180RUS | 5902134198583 | 25 |
| **10x200 | SMBSZ3100200RUS | 5902134198590 | 25 |
| **10x240 | SMBSZ3100240RUS | 5902134198606 | 25 |
| **10x280 | SMBSZ3100280RUS | 5902134198613 | 25 |
| **10x320 | SMBSZ3100320RUS | 5902134198620 | 25 |
| **10x360 | SMBSZ3100360RUS | 5902134198637 | 25 |
| **10x400 | SMBSZ3100400RUS | 5902134198644 | 25 |
| 12x80 | SMBSZ3120080RUS | 5902134198651 | 25 |
| 12x110 | SMBSZ3120110RUS | 5902134198668 | 25 |
| 12x130 | SMBSZ3120130RUS | 5902134198675 | 25 |
| 12x150 | SMBSZ3120150RUS | 5902134198682 | 25 |
| 14x80 | SMBSZ3140080RUS | 5902134198699 | 25 |
| 14x110 | SMBSZ3140110RUS | 5902134198705 | 25 |
| 14x130 | SMBSZ3140130RUS | 5902134198712 | 20 |
| 14x150 | SMBSZ3140150RUS | 5902134198729 | 20 |


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x50 | SMBSZ3060050A4 | 5902134198736 | 50 |
| 6x60 | SMBSZ3060060A4 | 5902134198743 | 50 |
| 8x0 | SMBSZ3080070A4 | 5902134198750 | 50 |
| 8x80 | SMBSZ3080080A4 | 5902134198767 | 50 |
| 10x90 | SMBSZ3100090A4 | 5902134198774 | 50 |
| 10x100 | SMBSZ3100100A4 | 5902134198781 | 25 |
| 10x120 | SMBSZ3100120A4 | 5902134198798 | 25 |

**SMBSV:**
**CONCRETE SCREW "TURBO SMART" WITH COUNTERSUNK HEAD**


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| *5x40 | SMBSV3050040Z | 5902134198804 | 100 |
| *5x50 | SMBSV3050050Z | 5902134198811 | 100 |
| *5x60 | SMBSV3050060Z | 5902134198828 | 100 |
| 6x40 | SMBSV3060040Z | 5902134198835 | 100 |
| 6x50 | SMBSV3060050Z | 5902134198842 | 100 |
| 6x60 | SMBSV3060060Z | 5902134198859 | 100 |
| 6x80 | SMBSV3060080Z | 5902134198866 | 100 |
| 6x100 | SMBSV3060100Z | 5902134198873 | 100 |
| 6x120 | SMBSV3060120Z | 5902134198880 | 100 |
| 6x140 | SMBSV3060140Z | 5902134198897 | 100 |
| 8x80 | SMBSV3080080Z | 5902134198903 | 50 |
| 10x90 | SMBSV3100090Z | 5902134198910 | 50 |


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x50 | SMBSV3060050A4 | 5902134198927 | 100 |
| 6x65 | SMBSV3060065A4 | 5902134198934 | 100 |
| 6x85 | SMBSV3060085A4 | 5902134198941 | 100 |
| 6x105 | SMBSV3060105A4 | 5902134198958 | 100 |
| 8x80 | SMBSV3080080A4 | 5902134198965 | 50 |
| 10x90 | SMBSV3100090A4 | 5902134198972 | 50 |

**SMBSP:**
**CONCRETE SCREW "TURBO SMART" WITH PAN HEAD**


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 5x40 | SMBSP3050040Z | 5902134198989 | 100 |
| 5x50 | SMBSP3050050Z | 5902134198996 | 100 |
| 5x60 | SMBSP3050060Z | 5902134199009 | 100 |
| 6x40 | SMBSP3060040Z | 5902134199016 | 100 |
| 6x50 | SMBSP3060050Z | 5902134199023 | 100 |
| 6x60 | SMBSP3060060Z | 5902134199030 | 100 |
| 6x8 | SMBSP3060080Z | 5902134199047 | 100 |
| 6x100 | SMBSP3060100Z | 5902134199054 | 100 |


Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x50 | SMBSP3060050A4 | 5902134199061 | 100 |
| 6x60 | SMBSP3060060A4 | 5902134199078 | 100 |
| 6x80 | SMBSP3060080A4 | 5902134199085 | 100 |
| 6x100 | SMBSP3060100A4 | 5902134199092 | 100 |

**SMBSF:**
**CONCRETE SCREW "TURBO SMART" WITH LARGE PAN HEAD FOR RAIL CONNECTIONS**



Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x40 | SMBSF3060040Z | 5902134199108 | 100 |
| 6x60 | SMBSF3060060Z | 5902134199115 | 100 |

**SMBSI:**
**CONCRETE SCREW "TURBO SMART" WITH METRIC INTERNAL THREAD**



Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x35 | SMBSI3060035Z | 5902134199245 | 50 |
| 6x55 | SMBSI3060055Z | 5902134199252 | 50 |

**SMBSS:**
**CONCRETE SCREW "TURBO SMART" WITH HEX DRIVE METRIC CONNECTION THREAD**

Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 8x105 | SMBSS3080105Z | 5902134199122 | 50 |
| 10x120 | SMBSS3100120Z | 5902134199139 | 50 |
| 10x165 | SMBSS3100165Z | 5902134199146 | 50 |
| 12x145 | SMBSS3120145Z | 5902134199153 | 25 |

Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 8x105 | SMBSS3080105A4 | 5902134199207 | 50 |
| 10x140 | SMBSS3100140A4 | 5902134199214 | 50 |
| 10x160 | SMBSS3100160A4 | 5902134199221 | 50 |
| 14x220 | SMBSS3140220A4 | 5902134199238 | 25 |

**SMBSB:**
**CONCRETE SCREW "TURBO SMART" WITH HEX HEAD WITH METRIC CONNECTION THREAD**



Carton box packing - Kartonverpakking - Boîte carton

| size | pgb code | EAN13 | |
|---|---|---|---|
| 6x35 | SMBSB3060035Z | 5902134199160 | 100 |
| 6x55 | SMBSB3060055Z | 5902134199177 | 100 |
| 6x75 | SMBSB3060075Z | 5902134199184 | 100 |
| 6x95 | SMBSB3060095Z | 5902134199191 | 100 |