



DECLARATION OF PERFORMANCE
according Annex III of the Regulation (EU) No 305/2011

Name of the product **E-Jet screws**

No. DOP 5_1-13/3

- | | |
|----------------------------------------------------|-------------------------------------------------------------------------|
| 1. Unique identification code of the product-type: | E-Jet screws |
| 2. Intended use: | Self-tapping screws for use in load-bearing timber constructions |
| 3. Manufacturer: | Verbindungselemente Engel GmbH
Weltestraße 2+4
D-88250 Weingarten |
| 5. System of AVCP: | System 3 |
| 6. European Assessment Document: | EAD 130118-00-0603 |
| European Technical Assessment: | ETA-13/0536 of 20 February 2018 |
| Technical Assessment Body: | Deutsches Institut für Bautechnik (DIBt) |
| Notified Body: | MPA Stuttgart, NB 0672 |
| 7. Declared performances: | |

Essential features	Measure	Performance					
		Dimension d					
	[mm]	Ø 3,0	Ø 3,5	Ø 4,0	Ø 4,5	Ø 5,0	Ø 6,0
Basic Works Requirement1: Mechanical resistance and stability							
Characteristic yield moment $M_{y,k}$	[Nm]	1,4	2,2	2,8	3,8	5,4	7,2
Characteristic tensile capacity $f_{tens,k}$	[kN]	3,5	4,5	6,0	7,0	8,0	9,0
Characteristic torsional strength $f_{tor,k}$	[Nm]	1,5	2,5	3,5	4,5	5,7	8,5
Characteristic withdrawal parameter $f_{ax,k}$	[N/mm ²]	11,5 $\alpha=90^\circ$					
Characteristic head pull-through parameter $f_{head,k}$	[N/mm ²]	min. 8					
Characteristic yield strength		npd					
Bending angle α	[°]	min. $45/d^{0,7}+20$					
Insertion moment $f_{tor,k} / R_{tor,mean}$		$\geq 1,5$					
Spacing, end and edge distances, minimum wood thickness a, t_1		EN 1995-1-1, 30mm					
Slip modulus for mainly axially loaded screws K_{ser}		$780 \cdot d^{0,2} \cdot l_{ef}^{0,4}$					
Durability against corrosion, coating thickness	[µm]	≥ 3					
Basic Works Requirement 2: Safety in case of fire							
Reaction to fire		Class A1					
Basic Works Requirement 4: Safety and accessibility in use							
Same as BWR 1							

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer.

Signed for and on behalf of the manufacturer by:

Holger Voss, managing director
Weingarten, 10.01.2020