



DECLARATION OF PERFORMANCE

No. 2016-001

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| 1. Unique identification code of the product type: | <i>WKH, WKN, WKNB, WKF, WKFB</i> |
| 2. Intended use/es: | <i>hardened screws for wood, chipboard and wood-based materials</i> |
| 3. Manufacturer: | <i>ARVEX GROBELNY Sp. z o.o.</i> |
| | <i>ul. Makuszyńskiego 4, 30-969 Krakow, POLAND</i> |
| 4. Authorised representative: | ----- |
| 5. System/s of AVCP: | <i>system 3</i> |
| 6a. Harmonised standard: | <i>PN-EN 14592+A1:2012 - „Timber structures – Dowel-type fasteners – Requirements”, 2012</i> |
| Notified Body/ies: | <i>1015, certificate of accreditation 292/2016, Strojirenský Zkušební Ústav, s.p., Czech Republic.</i> |
| 6b. European Assessment Document: | ----- |
| European Technical Assessment: | ----- |
| Technical Assessment Body: | ----- |
| Notified Body/ies: | ----- |
| 7. Declared performance: | |

Essential characteristics	Product type and size*	Performance	Harmonised technical specification
	screws for wood		
Material	WKH/WKN/WKNB/WKF/WKFB	Hardened carbon steel C1018/C1022	According to SAE/AISI
Geometric dimensions – tolerances	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	Length – L ₁ [mm]: ± 1,5mm Diameter – d ₁ [mm]: +0,1mm, -0,15mm Head diameter – d ₂ [mm]: +0,2mm, -0,5mm	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	Length – L ₁ [mm]: ± 1,5mm Diameter – d ₁ [mm]: +0,1mm, -0,2mm Head diameter – d ₂ [mm]: +0,2mm, -0,5mm	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	Length – L ₁ [mm]: ± 1,5mm Diameter – d ₁ [mm]: +0,15mm, -0,2mm Head diameter – d ₂ [mm]: +0,2mm, -0,6mm	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	Length – L ₁ [mm]: ± 2,0mm Diameter – d ₁ [mm]: +0,15mm, -0,25mm	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	Head diameter – d ₂ [mm]: +0,2mm, -0,6mm	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	Length – L ₁ [mm]: ± 2,0mm Diameter – d ₁ [mm]: +0,1mm, -0,3mm Head diameter – d ₂ [mm]: +0,2mm, -0,6mm	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	Length – L ₁ [mm]: ± 2,5mm Diameter – d ₁ [mm]: +0,1mm, -0,35mm Head diameter – d ₂ [mm]: +0,2mm, -0,7mm	
Characteristic yield moment – M _{y,k}	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	1085 [Nmm]	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	1824 [Nmm]	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	2279 [Nmm]	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	3813 [Nmm]	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	5242 [Nmm]	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	7021 (thread section) [Nmm] 9230 (smooth section) [Nmm]	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	12739 [Nmm]	
Characteristic withdrawal parameter for loading across the fibre – f _{ax,k} [for characteristic density of wood ρ _k = 370 kg/m ³]	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	18,04 [N/mm ²]	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	19,07 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	18,82 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	17,49 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	17,40 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	18,99 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	18,01 [N/mm ²]	

Characteristic withdrawal parameter for loading along the fibre – $f_{ax,k}$ [for characteristic density of wood $\rho_k = 370 \text{ kg/m}^3$]	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	11,69 [N/mm ²]	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	14,39 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	13,49 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	13,43 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	13,38 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	12,19 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	12,28 [N/mm ²]	
Characteristic head pull-through parameter – $f_{head,k}$ [for characteristic density of wood $\rho_k = 400 \text{ kg/m}^3$]	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	30,80 [N/mm ²]	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	27,49 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	25,41 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	21,36 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	20,85 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	21,39 [N/mm ²]	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	20,04 [N/mm ²]	
Characteristic tensile capacity – $f_{tens,k}$	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	2,87 [kN]	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	4,04 [kN]	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	4,05 [kN]	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	6,57 [kN]	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	8,05 [kN]	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	6,75 [kN]	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	14,04 [kN]	
Characteristic torsional ratio ($f_{tor,k} / R_{tor,k}$) [for characteristic density of wood $\rho_k = 450 \text{ kg/m}^3$]	WKH/WKN/WKNB/WKF/WKFB 2.5/xx	5,69	PN-EN 14592+A1:2012
	WKH/WKN/WKNB/WKF/WKFB 3.0/xx	2,03	
	WKH/WKN/WKNB/WKF/WKFB 3.5/xx	2,56	
	WKH/WKN/WKNB/WKF/WKFB 4.0/xx	3,66	
	WKH/WKN/WKNB/WKF/WKFB 4.5/xx	2,97	
	WKH/WKN/WKNB/WKF/WKFB 5.0/xx	2,01	
	WKH/WKN/WKNB/WKF/WKFB 6.0/xx	3,45	

*xx – applies to any length of the specified diameter of the screw.

8. Appropriate Technical Documentation and/or Specific Technical Documentation: *Certificates to the reports on assessment of the performance of construction products No.: E-30-20258-16, E-30-20259-16, E-30-20261-16, E-30-20264-16, E-30-20267-16, E-30-20270-16, E-30-20271-16 issued on 31st May 2016 by Strojírenský Zkušební Ústav, s.p., Czech Republic.*

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

Signed for and on behalf of the manufacturer by:

Jerzy Grobelny

[name]

in Krakow on 1st June 2016

[place]

[date of issue]

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