



Declaration of Performance

No. 012CPR2016-08-29

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|---|--|
| 1. Product-type: | Nail plates, ACF 1 |
| 2. Identification: | ACF nail plates dimensions 36x100 to 288x400 (mm) |
| 3. Intended use: | Two-dimensional nail plates (nail plates for wood to wood connections) |
| 4. Manufacturer: | Arras Construction Furniture OÜ Veerme 23 11625, Tallinn Estonia |
| 5. System of assessment of performance: | System 2+ |
| 6. Harmonized standard: | EN 14545 |
| Testing report: | No: 010-032930 |
| 7. Notified body: | Inspecta Estonia OÜ Identification No: 1336 Teaduspargi 8, 12618 Tallinn, Estonia |
| Factory Production Control (FPC): | 1336-CPR-0157 |

8. Declared performances

| Essential characteristics | Performance | European Technical Assessment |
|--|--|-------------------------------|
| Material | S350GD+ZN | EN 10346:2009 |
| Mechanical resistance and stability | | |
| Characteristic plate anchorage capacity | $f_{a,\alpha 0,0} = 3,86 \text{ MPa}$ $k_1 = 0,0046$ $f_{a,\alpha 90,90} = 1,56 \text{ Mpa}$ $k_2 = -0,0950$ $\alpha_0 = 60,9^\circ$ | TZUS report No: 010-032930 |
| Characteristic plate tension, compression and shear capacity | $f_{t,0} = 249,2 \text{ N/mm}$ $f_{t,90} = 185,7 \text{ N/mm}$ $f_{c,0} = 230,7 \text{ N/mm}$ $f_{c,90} = 187,7 \text{ N/mm}$ $f_{v,0} = 113,2 \text{ N/mm}$ $f_{v,90} = 101,9 \text{ N/mm}$ $\gamma_0 = 0^\circ$ $k_v = 0$ | TZUS report No: 010-032930 |
| Slip modulus with mean timber density $\rho_k=410\text{kg/m}^3$ | $k_{ser} = 3,95 \text{ N/mm}^3$ | TZUS report No: 010-032930 |
| Nail root ductility | Passed | TZUS report No: 010-032930 |
| Dimensions and tolerances | | |
| Thickness | 1,3mm (min: 0,9; max: 3,0mm) | EN 10143:2006 |
| Length | 36-288mm | - |
| Width | 100-400mm | - |
| Length, width | -1mm / +2mm; -1% / +2% | EN 14545:2008 |
| Thickness | + 1% | EN 14545:2008 |
| Corrosion protection | Hot-dip zinc coating Z275 | EN 14545:2008 |
| Durability | Service class 2 | EN 1995-1-1 |

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed on behalf of the manufacturer by:

Authorized by: **Mario Metsoja**
Position: **Quality Manager**

Signature: 

Date: **13.10.2016 (Tallinn)**