

# DECLARATION OF PERFORMANCE NO: 00622SB

1. Unique identification code of the product-type:

**ZSB15048**

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):

**Z + PROPERTY CLASS + SB + WEEK NUMBER AND LAST TWO DIGITS OF THE YEAR**  
(see head marking, etiquette or certificate)

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

**Assemblies for steel constructions according to EN 15048**

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



**ul. Grunwaldzka 5, 34-300 Żywiec, Poland**

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):  
*not applicable*

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:  
**EN 15048-1, Annex ZA, System 2+**

7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:  
**Building Research Institute Certification Department, Warszawa, Nr 1488**

(name and identification number of the notified body, if relevant)

performed **assessment and approval of the factory production control under system 2+**

(description of the third party tasks as set out in Annex V)

and issued:

**EC Certificate of Factory Production Control 1488-CPD-162/Z**

(certificate of constancy of performance, certificate of conformity of the factory production control, test/calculation reports – as relevant)

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:  
*not applicable*

9. Declared performance:

Notes to the table:

1. Column 1 shall contain the list of essential characteristics as determined in the harmonized technical specifications for the intended use or uses indicated in point 3 above.
2. For each essential characteristic listed in column 1 and in compliance with the requirements of Article 6, column 2 shall contain the declared performance, expressed by level or class, or in a description, related to the corresponding essential characteristics. The letters "NPD" (No Performance Determined) shall be indicated where no performance is declared.
3. For each essential characteristic listed in column 1, column 3 shall contain:
  - (a) dated reference of the corresponding harmonized standard and, where relevant, the reference number of the Specific or Appropriate Technical Documentation used;
 or
  - (b) dated reference of the corresponding European Assessment Document where available and reference number of the European Technical Assessment used.

Essential characteristics	Performance		Harmonized technical specification
Tolerances of the components (bolts)	According to the order DIN7990 productclass C and productstandard acc. EN ISO 4759-1		EN 15048-1:2007 Table ZA.1
	<b>Mechanical properties class 5.6</b>	<b>Mechanical properties class 8.8</b>	
Elongation (bolts)	$A_{5\%} \geq 20\%$	$A_{5\%} \geq 12\%$	
Tensile strength (bolts)	$R_m \geq 500N/mm^2$	$R_m \geq 830N/mm^2$	
Yield point (bolts)	$R_{e2} \geq 300N/mm^2$	$R_{p0.2} \geq 660N/mm^2$	
Proof stress (bolts)	$S_p$ of 280N/mm <sup>2</sup>	$S_p$ of 600N/mm <sup>2</sup>	
Strength in wedge test (bolts)	$R_m \geq 500N/mm^2$	$R_m \geq 830N/mm^2$	
Hardness (bolts)	$\geq 79HRB$ and $\leq 95HRB$	$\geq 23HRC$ and $\leq 34HRC$	
Impact test at -20°C (bolts)	$KV_2 \geq 27J$	$KV_2 \geq 27J$	
Emissions of dangerous substances (bolts)	NPD		
Durability (bolts)	HDG		
Tolerances of the components (nuts)	According to the order ISO 4032 productclass A (d ≤ 16mm) or B (d ≥ 16mm) or ISO4034 productclass C. Productstandard acc. EN ISO 4759-2		
	<b>Mechanical properties class 5-2</b>	<b>Mechanical properties class 8</b>	
Proof stress (nuts)	$S_p$ of 610 N/mm <sup>2</sup> (M12 and M16) or 630N/mm <sup>2</sup> (>M16)	$S_p$ of 880 N/mm <sup>2</sup> (M12 and M16) or 920N/mm <sup>2</sup> (>M16)	
Hardness HV <sub>10</sub> (nuts)	$\geq 130$ and $\leq 302$ (M12 and M16) or $\geq 146$ and $\leq 302$ (>M16)	$\geq 200$ and $\leq 302$ (M12 and M16) or $\geq 233$ and $\leq 353$ (>M16)	
Emissions of dangerous substances (nuts)	NPD		
Durability (nuts)	HDG		
Tensile resistance of the assembly (assemblies)	$F_{bt,max} \geq F_{ub} = A_s, nom \times R_{m, min}$ Pass with $R_m \geq 500MPa$	$F_{bt,max} \geq F_{ub} = A_s, nom \times R_{m, min}$ Pass with $R_m \geq 830MPa$	
Durability (assemblies)	HDG		

Where pursuant to Article 37 or 38 the Specific Technical Documentation has been used, the requirements with which the product complies:  
*not applicable*

10. **The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.**

Signed for and on behalf of the manufacturer by:

*MA Włodzimierz Mrowiec*  
*Quality Control Department Manager*  
(name and function)

.....  
(signature)

Żywiec, 1.07.2013  
(place and date of issue)