

# Declaration of Performance

No.: DOP\_HBS\_BSH

1. Unique product type identification code:

**Glued laminated timber HBS**

2. Intended use of the building product according to harmonized technical specification:

**Buildings and Bridges**

3. Name, registered trade name or brand, along with the address of the producer according to Article 11 Paragraph 5 construction products regulation:

**HASSLACHER Holzbausysteme GmbH**

**Feistritz 1**

**9751 Sachsenburg**

**Austria**

4. Name and address of the authorized agent for the tasks referred to in Article 12 Paragraph 2 construction products regulation:

**No authorized agent**

5. System of assessment and verification of performance constancy pursuant to Appendix V of the construction products regulation:

**System 1**

6. If the building product is regulated by a harmonized standard:

**EN 14080:2013**

7. Notified Body(ies):

**No. 1359**

8. If the building product is regulated by an European technical assessment:

**Not applicable**

9. Declaration of performance:

Main Features and Characteristics		Performance
<b>Mechanical characteristics of glued laminated products</b>	Characteristics of timber	NPD
	Bending strength	Classification based on the characteristics of laminations according EN 338 – assignment of strength class corresponding Table 4 or 5 EN 14080
	Compression strength	<b>Spruce/Fir:</b> GL20h, GL24h, GL24c, GL28h, GL28c, GL30h, GL30c, GL32h, GL32c,  GL36hHBS
	Tensile strength	( $f_{m,g,k} = 36 \text{ N/mm}^2$ ; $f_{t,0,g,k} = 28,8 \text{ N/mm}^2$ ; $f_{t,90,g,k} = 0,5 \text{ N/mm}^2$ ; $f_{c,0,g,k} = 36 \text{ N/mm}^2$ ; $f_{c,90,g,k} = 2,5 \text{ N/mm}^2$ ; $f_{v,g,k} = 3,5 \text{ N/mm}^2$ ; $f_{r,g,k} = 1,2 \text{ N/mm}^2$ ; $E_{0,g,mean} = 15750 \text{ N/mm}^2$ ; $E_{0,g,05} = 13100 \text{ N/mm}^2$ ; $E_{90,g,mean} = 300 \text{ N/mm}^2$ ; $E_{90,g,05} = 250 \text{ N/mm}^2$ ; $G_{g,mean} = 650 \text{ N/mm}^2$ ; $G_{g,05} = 540 \text{ N/mm}^2$ ; $G_{r,g,mean} = 65 \text{ N/mm}^2$ ; $G_{r,g,05} = 54 \text{ N/mm}^2$ ; $\rho_{g,k} = 460 \text{ kg/m}^3$ ; $\rho_{g,mean} = 520 \text{ kg/m}^3$ ),
	Shear strength	
	Modulus of elasticity	<b>GL36cHBS</b> ( $f_{m,g,k} = 36 \text{ N/mm}^2$ ; $f_{t,0,g,k} = 25,3 \text{ N/mm}^2$ ; $f_{t,90,g,k} = 0,5 \text{ N/mm}^2$ ; $f_{c,0,g,k} = 31,7 \text{ N/mm}^2$ ; $f_{c,90,g,k} = 2,5 \text{ N/mm}^2$ ; $f_{v,g,k} = 3,5 \text{ N/mm}^2$ ; $f_{r,g,k} = 1,2 \text{ N/mm}^2$ ; $E_{0,g,mean} = 15300 \text{ N/mm}^2$ ; $E_{0,g,05} = 12750 \text{ N/mm}^2$ ; $E_{90,g,mean} = 300 \text{ N/mm}^2$ ; $E_{90,g,05} = 250 \text{ N/mm}^2$ ; $G_{g,mean} = 650 \text{ N/mm}^2$ ; $G_{g,05} = 540 \text{ N/mm}^2$ ; $G_{r,g,mean} = 65 \text{ N/mm}^2$ ; $G_{r,g,05} = 54 \text{ N/mm}^2$ ; $\rho_{g,k} = 440 \text{ kg/m}^3$ ; $\rho_{g,mean} = 480 \text{ kg/m}^3$ )
	Bonding strength	
	Strength of finger joints	<b>Pine, Larch:</b> GL24h, GL24c, GL28h, GL28c
	Additional for glued laminatd timber with large finger joints: Bending strength of large finger joints	NPD
	Geometrical data	NPD
<b>Resistance to fire</b>		NPD
<b>Bonding strength</b>	Glue line integrity of surface bonding	Delamination test according EN 14080, Annex C, Test method B
	Glue lines between components of glued laminated timber	NPD
	Large finger joints	NPD

<b>Reaction to fire</b>		D-s2, d0
<b>Emission of formaldehyde</b>		E1
<b>Release of other dangerous substances</b>		NPD
<b>Durability of bonding strength</b>	Species	Spruce/Fir, Pine, Larch
	Adhesives	MUF / Type I according EN 301 I 90 FJ 0,1 S I 90 GP 0,3 S
<b>Durability against biological attack</b>	Lamination without preservative treatment	Durability class 5 according EN 350-2
	Lamination with preservative treatment	NPD

NPD – No Performance Determined

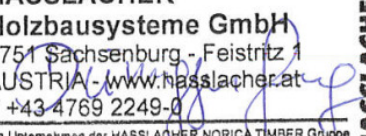

10. The performance of the previous product corresponds with the declared performance/the declared performances. For the creation of this performance in accordance with the EU regulation No. 305/2011 the manufacturer is uniquely responsible for.

Signed in the name of the manufacturer:

Georg Dürregger / managing director HASSLACHER Holzbausysteme GmbH

Name and position

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**Holzbausysteme GmbH**  
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 Ein Unternehmen der HASSLACHER NORICA TIMBER Gruppe  
 A company of the HASSLACHER NORICA TIMBER Group

Sachsenburg, 1st September 2018

Place and date of issue

Stamp/signature