Declaration of performance (DOP)

No. 9174 015 DOP 2013-06-17

1. Unique identification code of the product-type:

   Multi-wall chimney system type DW-ECO-TITAN according to EN 1856-1:2009

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

   Double wall chimney system type DW-ECO-TITAN with 25 mm heat insulation[1)]

Model 1	**DN (80- 300) T400 – N1 – W – V2 – L99050 – O30**
Model 1	**DN (350- 450) T400 – N1 – W – V2 – L99050 – O45**
Model 1	**DN (500- 600) T400 – N1 – W – V2 – L99050 – O60**
Model 2	**DN (80- 300) T600 – N1 – W – V2 – L99050 – O50**
Model 2	**DN (350- 450) T600 – N1 – W – V2 – L99050 – O75**
Model 2	**DN (500- 600) T600 – N1 – W – V2 – L99050 – O100**
Model 3	**DN (80- 300) T600 – N1 – D – V2 – L99050 – G70**
Model 3	**DN (350- 450) T600 – N1 – D – V2 – L99050 – G105**
Model 3	**DN (500- 600) T600 – N1 – D – V2 – L99050 – G140**

[1)] Manufacturer product identification DW-ECO-TITAN

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

   Convey the products of combustion from heating appliances to the outside atmosphere

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

jeremias GmbH
Opfenrieder Straße 11-14
DE-91717 Wassertrüdingen
Tel.: +49 9832 68 68 0
Fax: +49 9832 68 68 68
Email: info@jeremias.de

5. Where applicable, name and contact address of the authoriesed 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 contruction product as set out in CPR, Annex V:

   System 2+ and System 4

7. In case of the declaration of performance concering a construction product for which a European Technical Assessment has been issued:

   Notified factory production control certification body no. 0036 performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of conformity 0036 CPD 9174 015 of the factory production control.

8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification
8.1	Compressive strength Chimney selections, fittings and supports	Sections and fittings: Model 1 to 3 DN (80- 300): **up to 15 m** Model 1 to 3 DN (350- 450): **up to 10 m** Model 1 to 3 DN (500- 600): **up to 10 m** Supports: n.p.d. For further information see the installation instruction DW-ECO-TITAN	EN 1856-1:2009
8.2	Resistance to fire	(Resistance to fire from inside to outside) Model 1 DN (80- 300): T400 – **O30** Model 1 DN (350- 450): T400 – **O45** Model 1 DN (500- 600): T400 – **O60** Model 2 DN (80- 300): T600 – **O50** Model 2 DN (350- 450): T600 – **O75** Model 2 DN (500- 600): T600 – **O100** Model 3 DN (80- 300): T600 – **G70** Model 3 DN (350- 450): T600 – **G105** Model 3 DN (500- 600): T600 – **G140** Tested without cover, with back ventilated ceiling duct.	EN 1856-1:2009
8.3	Gas tightness/ leakage	Model 1 to 3 DN (80- 600): **N1**	EN 1856-1:2009
8.4	Flow resistance of chimney sections fittings and terminals	According to EN 13384-1 **component:** / **ζ (Zeta-value) single resistances** pipe tee 87°: 1,14 pipe tee 45°: 0,35 pipe bend 87°: 0,40 pipe bend 45°: 0,28 pipe bend 30°: 0,20 pipe bend 15°: 0,10 **Terminals:** (only for operation in negative pressure) rain cap 1,0 fin cap type „Hubo“: ≤ Ø 140 mm 0,1/ ≥ Ø 150 mm 0,2 wind deflector: ≤ Ø 140 mm 0,1/ ≥ Ø 150 mm 0,2 hurrican: 0,1	EN 1856-1:2009
8.5	Thermal resistance	Model 1 to 3 DN (80- 600):**>0,26 m²K/W calculated for 200°C*** * The calculated values of thermal resistance is dependent on the nominal diameters of inner tubes see product information and mounting instruction dw-eco-titan	EN 1856-1:2009
8.6 8.7	Thermal shock resistance Sootfire resistance Thermal performance under normal operatin conditions	Model 1 DN (80- 600): **No**[2)] Model 2 DN (80- 600): **No**[2)] Model 3 DN (80- 600): **Yes** [2)] because designated O Model 1 DN (80- 600): **T400** Model 2 DN (80- 600): **T600** Model 3 DN (80- 600): **T600**	EN 1856-1:2009
8.8	Flexural tensile strength (only for means of connection for chimney sections and fittings)	Model 1 to 3 DN (80- 300): **up to 9 m** Model 1 to 3 DN (350- 450): **n.p.d.** Model 1 to 3 DN (500- 600**): n.p.d.**	EN 1856-1:2009

8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification
8.9	Non vertical installation	Model 1 to 3 DN (80- 600): Maximum offset between supports **3 m at 90°** (Inclined run, maximum distance between two fixations, supports at non vertical installation)	EN 1856-1:2009
8.10	Components subject to wind load	Maximum spacing between lateral supports: Model 1 to 3 DN (80- 600): **4 m** Free standing height above last support: Model 1 to 3 DN (80- 300): **3 m** (wall thickness 0,5 mm) Model 1 to 3 DN (350- 400): **2,5 m** (wall thickness 0,5 mm) Model 1 to 3 DN (450- 600): **1,5 m** (wall thickness 0,6 mm)	EN 1856-1:2009
	Durability:		
8.11	Water and vapour diffusion resistance	Model 1 DN (80- 600): **Yes** Model 2 DN (80- 600): **Yes** Model 3 DN (80- 600): **No**	EN 1856-1:2009
8.12	Condensate penetration resistance	Model 1 DN (80- 600): **Yes** Model 2 DN (80- 600): **Yes** Model 3 DN (80- 600): **No**	
8.13	Against corrosion	Model 1 DN (80- 600): **V2** Model 2 DN (80- 600): **V2** Model 3 DN (80- 600): **V2**	
8.14	Freeze thaw resistance	Model 1 to 3 DN (80- 600): **Yes**	

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 for and on behalf of the manufacturer by:

Wassertrüdingen, 17th June 2013

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Stefan Engelhardt CEO

Product information

"Chimneys - Requirements for metal chimneys
Part 1: System chimney products" DIN EN 1856-1:2009

Manufacturer´s identification:

jeremias GmbH
Opfenrieder Str. 11-14
91717 Wassertrüdingen
Tel.: +49 (0) 9825 / 68 68-50
Fax: +49 (0) 9825 / 68 68-68
Internet: www.jeremias.de
E-Mail: info@jeremias.de

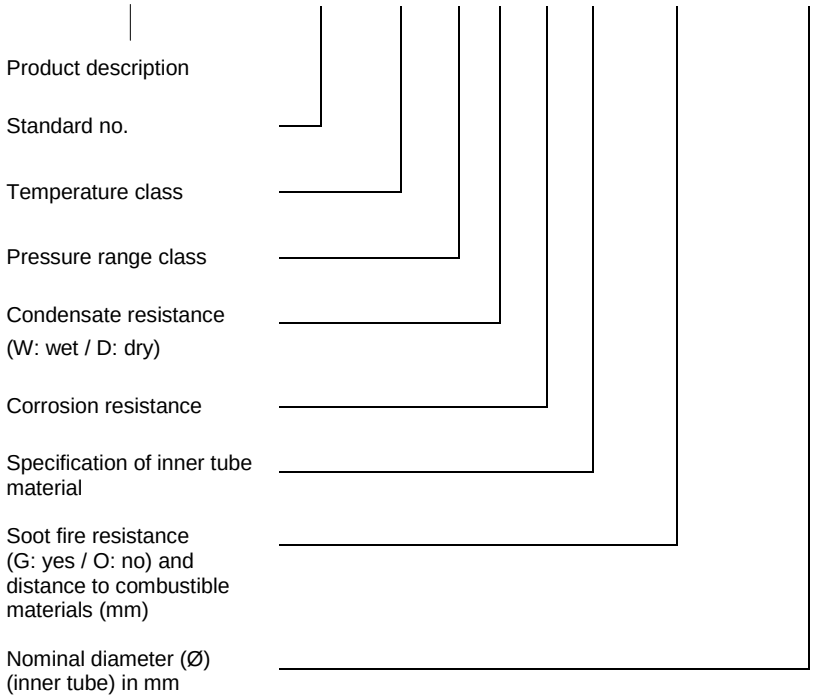
Product trade name: **DW-ECO-TITAN** (double wall chimney system with 25 mm heat insulation)

Certification office: TÜV SÜD Industrie Service GmbH

Name and position of the responsible person: **Stefan Engelhardt** CEO

Identification of accompanying documentation

0.1	**Metal chimney**	**EN 1856-1**	**T400**	**N1**	**W**	**V2-L99050**	**O30** **O45** **O60**	**80 - 300** **350 - 450** **500 - 600**	Double wall chimney system, moisture resistant with 25 mm insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.
0.2	**Metal chimney**	**EN 1856-1**	**T600**	**N1**	**W**	**V2-L99050**	**O50** **O75** **O100**	**80 - 300** **350 - 450** **500 - 600**	Double wall chimney system, moisture resistant with 25 mm insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.
0.3	**Metal chimney**	**EN 1856-1**	**T600**	**N1**	**D**	**V2-L99050**	**G70** **G105** **G140**	**80 - 300** **350 - 450** **500 - 600**	Double wall chimney system, soot fire resistant with 25 mm insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.



Properties of a multi-wall metal chimney system

Compressive strength:

Maximum load (see encl. H-1 Installing instructions)

Flow resistance:

Average roughness: 1,0 mm, Zeta-values according to DIN EN 13384-1 (see encl. H-1 Installing instructions)

Thermal resistance: 0,26 m²K/W

Bending strength:

Angular assembly: Maximum length between two supports: 3 m at 90°

Tensile strength:

See encl. H-1 Installing instructions

Wind load: free standing end above last fixation:

≤3 m	up to ≤Ø300 mm (0,5 mm wall thickness)
≤2,5 m	Ø350 – ≤Ø400 mm (0,5 mm wall thickness)
≤1,5 m	Ø450 – ≤Ø600 mm (0,6 mm wall thickness)

Maximum distance between vertical supports: 4 m

Freeze-thaw resistance: Yes

Cleaning:

The chimney system is only allowed to be cleaned with cleaning devices made of plastic or rust-resistant stainless steel.