

# Declaration of Performance



No. 91323 029 DoP 2020-06-02 · Declaration of Performance (DoP)

1. Unique identification code of the product-type:

**Chimney systems with rigid or flexible inner liner and formed parts made of polypropylene plastics  
acc. EN 14471:2013+A1:2015 type TEC-PP**

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

**Chimney system with rigid or flexible plastic inner pipes type TEC-PP<sup>1)</sup>**

<b>Model 1 TEC-PPS</b>	< DN200	T120 – H1 – W2 – O20 – LI – E – U
	≥ DN200	T120 – P1 – W2 – O20 – LI – E – U
<b>Model 2 TEC-LAS-PP<sup>2)</sup></b>	< DN200	T120 – H1 – W2 – O00 – LE – E – U0
	≥ DN200	T120 – P1 – W2 – O00 – LE – E – U0
<b>Model 2b) TEC-LAS-PP (Design)<sup>3)</sup></b>	DN60 – 110	T120 – H1 – W2 – O00 – LE – E – U0
<b>Model 2c) TEC-LAS-PP (Kupfer)<sup>4)</sup></b>	DN60 – 110	T120 – H1 – W2 – O00 – LE – E – U0
<b>Model 3 TEC-LAS-PP-VL</b>	< DN200	T120 – H1 – W2 – O00 – LI – E – U0
	≥ DN200	T120 – P1 – W2 – O00 – LI – E – U0
<b>Model 4 TEC-PP-FLEX</b>	DN60 - ≤ DN110	T120 – H1 – W2 – O00 – LI – E – U0
	> DN110 - DN160	T120 – P1 – W2 – O00 – LI – E – U0

<sup>1)</sup> Manufacturer product identification

<sup>2)</sup> with stainless steel outer pipe, in highly polished finishing or painted

<sup>3)</sup> with stainless steel Design (reduced) outer pipe, in mat, brushed

<sup>4)</sup> with copper Design (reduced) outer pipe

3. Intended use or uses of the construction product, in accordance with the applicable harmonized 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):

**TECNOVIS GmbH  
Lessingstr. 20  
DE-63110 Rodgau**

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 CPR, Annex V:

**System 2+ and System 3**

7. In case of the declaration of performance concerning 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 CPR 91323 029 of the factory production control.**

8. Declared performance:

	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
8.1	Compressive strength (max. installation height without intermediate support)	Sections and fittings: Model 1, 2, 2a), 3, 4: <b>30 m</b> Model 2b): <b>15 m</b>	EN 14471:2013+A1:2015
8.2	Components subject to wind load (maximum spacing between lateral supports)	Model 1 tec-pps DN (60 – 250): <b>n.p.d.</b> Model 2 tec-las-pp DN (60 – 250): <b>≤ 2,4 m</b> Model 2a) tec-las-pp (Design) DN (60 – 110): <b>≤ 2,0 m</b> Model 2b) tec-las-pp (Kupfer) DN (60 – 110): <b>≤ 2,2 m</b> Model 3 tec-las-pp-vl DN (60 – 110): <b>n.p.d.</b> Model 4 tec-pp-flex DN (60 – 160): <b>n.p.d.</b>	EN 14471:2013+A1:2015
8.3	Components subject to wind load (free standing height above last support)	Model 1 tec-pps DN (60 – 250): <b>n.p.d.</b> Model 2 tec-las-pp DN (60 – 250): <b>≤ 4 m</b> Model 2a) tec-las-pp (Design) DN (60 – 110): <b>≤ 4 m</b> Model 2b) tec-las-pp (Kupfer) DN (60 – 110): <b>≤ 3 m</b> Model 3 tec-las-pp-vl DN (60 – 110): <b>n.p.d.</b> Model 4 tec-pp-flex DN (60 – 160): <b>n.p.d.</b>	EN 14471:2013+A1:2015
8.4	Fire prevention (Temperature level, distance from outer surface to combustible materials, class of outer wall)	Model 1 tec-pps DN (60 – 250): <b>T120 – O20 – E – U</b> Model 2 tec-las-pp DN (60 – 250): <b>T120 – O00 – E – U0<sup>5)</sup></b> Model 2a) tec-las-pp (Design) DN (60 – 110): <b>T120 – O00 – E – U0<sup>5)</sup></b> Model 2b) tec-las-pp (Kupfer) DN (60 – 110): <b>T120 – O00 – E – U0<sup>5)</sup></b> Model 3 tec-las-pp-vl DN (60 – 110): <b>T120 – O00 – E – U0<sup>5)6)</sup></b> Model 4 tec-pp-flex DN (60 – 160): <b>T120 – O00 – E – U0<sup>6)</sup></b>  Installed in metal tubes <sup>5)</sup> or non-combustible duct <sup>6)</sup> with permanent ventilation.  The distances do not apply for wall, ceiling or roof penetrations. Please consider the respective federal firing regulations (MFeuVo and FeuVo).	EN 14471:2013+A1:2015
8.5	Gas tightness / leakage (Pressure level)	Model 1 tec-pps DN ( 60 – <200): <b>H1</b> Model 1 tec-pps DN (≥200 – 250): <b>P1</b> Model 2 tec-las-pp DN ( 60 – <200): <b>H1</b> Model 2 tec-las-pp DN (≥200 – 250): <b>P1</b> Model 2a) tec-las-pp (Design) DN ( 60 – 110): <b>H1</b> Model 2b) tec-las-pp (Kupfer) DN ( 60 – 110): <b>H1</b> Model 3 tec-las-pp-vl DN ( 60 – <200): <b>H1</b> Model 3 tec-las-pp-vl DN (≥200 – 250): <b>P1</b> Model 4 tec-pp-flex DN ( 60 – ≤110): <b>H1</b> Model 4 tec-pp-flex DN (>110 – 160): <b>P1</b>	EN 14471:2013+A1:2015
8.6	Thermal performance (Temperature level)	Model 1 to 4: <b>T 120</b>	EN 14471:2013+A1:2015
8.7	Dimensions in mm	Model 1 tec-pps: <b>60; 80; 100; 110; 125; 160; 200; 250</b> Model 2 tec-las-pp: <b>60/100; 80/125; 100/150; 110/160; 125/190; 160/230; 200/265; 250/315</b> Model 2a) tec-las-pp (Design) and 2b) tec-las-pp (Kupfer): <b>60/100; 80/125; 100/150; 110/160</b> Model 3 tec-las-pp-vl: <b>60/100; 80/125; 100/150; 110/160</b> Model 4 tec-pp-flex: <b>60; 80; 100; 110; 125; 160</b>	EN 14471:2013+A1:2015

8. Declared performance:

	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
8.8	Thermal resistance m <sup>2</sup> K/W	Model 1 to 4: <b>R 00</b>	EN 14471:2013+A1:2015
8.9	Flow resistance of chimney sections (r = average roughness of inner liner)	Model 1 to 3: <b>r = 0,5 mm</b> Model 4: <b>r = 1,0 mm</b>	EN 13384-1
8.10	Flow resistance of chimney fittings (ζ = single resistance factor)	According to EN 13384-1	EN 13384-1
8.11	Flow resistance of terminals (ζ = single resistance factor in the exhaust system) (ζ = single resistance factor in the air supply)	Model 1 to 4: <b>n.p.d.</b>	EN 13384-1
8.12	Flexural tensile strength (real length of lateral displacement)	Model 1, 2a), 2b), 3, 4: <b>1.500 mm</b> Model 2c): <b>n.p.d.</b>	EN 14471:2013+A1:2015
8.13	Flexural tensile strength (max. inclination)	Model 1 to 3: <b>87°</b> Model 4: <b>0° - 45°</b>	EN 14471:2013+A1:2015
8.14	Resistance against chemicals (Condensate resistance)	Model 1 to 4: <b>W</b>	EN 14471:2013+A1:2015
8.15	Resistance against chemicals (Corrosion resistance)	Model 1 to 4: <b>2</b>	EN 14471:2013+A1:2015
8.16	UV-resistance (installation class)	Model 1; 3 and 4: <b>LI</b> Model 2: <b>LE</b>	EN 14471:2013+A1:2015
8.17	Thermal resistance	Model 1 to 4: <b>T120</b> Also suitable.	EN 14471:2013+A1:2015
8.18	Fire behaviour	Model 1 to 4: <b>E</b>	EN 14471:2013+A1:2015
8.19	Freeze-thaw resistance	Model 1 to 4: <b>Ja</b>	EN 14471:2013+A1:2015
8.20	Dangerous substances	No release of dangerous substances in planned operation	

8. Declared performance:

	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
	Characteristics for the wind direction of terminals	Model 1 to 4: <b>n.p.d.</b>	EN 14471:2013+A1:2015
	Resistance of terminals to rainwater penetration	Model 1 to 4: <b>n.p.d.</b>	EN 14471:2013+A1:2015
	Resistance of terminals to icing	Model 1 to 4: <b>n.p.d.</b>	EN 14471:2013+A1:2015

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:

Rodgau, 02<sup>nd</sup> June 2020



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Attila Kovacs CEO

# Product information



“Chimneys – System chimneys with plastic flue liners, requirements and test methods“ EN 14471

Manufacturer's identification: **TECNOVIS GmbH**  
**Lessingstr. 20**  
**DE-63110 Rodgau**

Product trade name: **TEC-PP** (chimney system made of polypropylene)  
 Product subcategory: **TEC-PPS / TEC-LAS-PP / TEC-LAS-PP (Design) / TEC-LAS-PP (Kupfer) / TEC-LAS-PP-VL / TEC-PP-FLEX**

Certification office: **TÜV SÜD Industrie Service GmbH**  
 Name and position of the responsible person: **Attila Kovacs CEO**  
 Identification of accompanying documents

<b>0.1 TEC-PPS</b>	<b>EN 14471</b>	<b>T120</b> <b>T120</b>	<b>H1</b> <b>P1</b>	<b>W</b> <b>W</b>	<b>2</b> <b>2</b>	<b>O20</b> <b>O20</b>	<b>LI</b> <b>LI</b>	<b>E</b> <b>E</b>	<b>U</b> <b>U</b>	<b>&lt; DN200</b> <b>≥ DN200</b>	Single wall chimney system made of plastic, applicable for moisture resistant operation mode in positive pressure up to max. 5000Pa, ventilated throughout the whole length, for the installation inside buildings as indoor air independent connection piping or for the installation in non-combustible ductworks, that comply with the national fire protection regulations, in indoor air dependent / independent operation mode
<b>0.2 TEC-LAS-PP</b>	<b>EN 14471</b>	<b>T120</b> <b>T120</b>	<b>H1</b> <b>P1</b>	<b>W</b> <b>W</b>	<b>2</b> <b>2</b>	<b>O00</b> <b>O00</b>	<b>LE</b> <b>LE</b>	<b>E</b> <b>E</b>	<b>U0</b> <b>U0</b>	<b>&lt; DN200</b> <b>≥ DN200</b>	Multiple wall chimney system, inner pipe made of plastic, annular gap for ventilation, outer tube made of stainless steel, applicable for moisture resistant, indoor air dependent / independent operation mode in positive pressure up to max. 5000Pa., installation outside / inside buildings or installation in non-combustible ductworks, that comply with the national fire protection regulations.
<b>0.2a) TEC-LAS-PP (Design)</b>	<b>EN 14471</b>	<b>T120</b>	<b>H1</b>	<b>W</b>	<b>2</b>	<b>O00</b>	<b>LE</b>	<b>E</b>	<b>U0</b>	<b>DN60- DN110</b>	Multiple wall chimney system, inner pipe made of plastic, annular gap for ventilation, <b>reduced</b> outer tube made of stainless steel, applicable for moisture resistant, indoor air dependent / independent operation mode in positive pressure up to max. 5000Pa., locking band required. Installation outside / inside buildings or installation in non-combustible ductworks, that comply with the national fire protection regulations.
<b>0.2b) TEC-LAS-PP (Kupfer)</b>	<b>EN 14471</b>	<b>T120</b>	<b>H1</b>	<b>W</b>	<b>2</b>	<b>O00</b>	<b>LE</b>	<b>E</b>	<b>U0</b>	<b>DN60- DN110</b>	Multiple wall chimney system, inner pipe made of plastic, annular gap for ventilation, <b>reduced</b> outer tube made of copper, applicable for moisture resistant, indoor air dependent / independent operation mode in positive pressure up to max. 5000Pa. locking band required. Installation outside / inside buildings or installation in non-combustible ductworks, that comply with the national fire protection regulations.
<b>0.3 TEC-LAS-PP-VL</b>	<b>EN 14471</b>	<b>T120</b> <b>T120</b>	<b>H1</b> <b>P1</b>	<b>W</b> <b>W</b>	<b>2</b> <b>2</b>	<b>O00</b> <b>O00</b>	<b>LI</b> <b>LI</b>	<b>E</b> <b>E</b>	<b>U0</b> <sup>1)</sup> <b>U0</b> <sup>1)</sup>	<b>&lt; DN200</b> <b>≥ DN200</b>	Multiple wall chimney system, inner pipe made of plastic, annular gap for ventilation, outer pipe made of galvanized and powder coated sheet metal, applicable for moisture, indoor air dependent / independent operation mode in positive pressure up to max. 5000Pa. <sup>1)</sup> Installation inside buildings as connection piping.
<b>0.4 TEC-PP-FLEX</b>	<b>EN 14471</b>	<b>T120</b> <b>T120</b>	<b>H1</b> <b>P1</b>	<b>W</b> <b>W</b>	<b>2</b> <b>2</b>	<b>O00</b> <b>O00</b>	<b>LI</b> <b>LI</b>	<b>E</b> <b>E</b>	<b>U0</b> <b>U0</b>	<b>DN60- ≤DN110</b> <b>&gt;DN110-DN160</b>	Single wall chimney system, consisting of rigid and flexible plastic pipes, applicable for moisture resistant, indoor air dependent / independent operation mode in positive pressure up to max. 5000Pa, ventilated throughout the whole length, for installation in non-combustible ductworks, that comply with the national fire protection regulations.

Product description	
Standard number	EN 14471
Temperature level	T120
Pressure level	H1
Condensate resistance (W: wet / D: dry)	W
Corrosion resistance	W
Distance to combustible materials	2
Installation location: (LI: inside building LE: inside & outside of buildings)	LI
Fire behavior	E
Outer casings	U0
Diameter (Ø) in mm	DN60- ≤DN110 / >DN110-DN160

**EN 14471**

**Compressive strength:** maximum load 30 m without intermediate support  
 maximum load 15 m without intermediate support (Model 2b)

**Wind stress:**  
**TEC-PPS:** n.p.d  
**TEC-LAS-PP:** 4 m between two wall fixations, 2,4 m free standing  
**TEC-LAS-PP (Design):** 4 m between two wall fixations, 2,0 m free standing with locking band  
**TEC-LAS-PP (Kupfer):** 3 m between two wall fixations, 2,2 m free standing with locking band  
**TEC-LAS-PP-VL:** <sup>1)</sup> Installation only inside buildings, as connection piping towards vertical chimney, max. 3 m between two wall fixations  
**TEC-PP-FLEX:** n.p.d

**Nominal diameters (Ø) inner pipes /outer pipes in mm:**  
**TEC-PPS:** 60; 80; 100; 110; 125; 160; 200; 250  
**TEC-LAS-PP:** 60/100; 80/125; 100/150; 110/160; 125/190; 160/230; 200/265; 250/315  
**TEC-LAS-PP (Design) / (Kupfer):** 60/100; 80/125; 100/150; 110/160  
**TEC-LAS-PP-VL:** 60/100; 80/125; 100/150; 110/160  
**TEC-PP-FLEX:** 60; 80; 100; 110; 125; 160

**Thermal resistance:** 0 m<sup>2</sup>K/W  
**Flow resistance:** average roughness acc. EN 13384-1  
**Bending tensile strength: Non-vertical installation between two supports:**  
**TEC-PPS:** ≤ 2 m; **TEC-LAS-PP:** 4 m; **TEC-LAS-PP (Design):** 4 m; **TEC-LAS-PP (Kupfer):** n.p.d.;  
**TEC-LAS-PP-VL:** 4 m; **TEC-PP-FLEX:** not possible

**Condensate resistance:** given  
**Resistance against thermic exposure:** T120  
**Reaction to fire acc. EN 13501-1:** E  
**Raw material designation:** pp = polypropylene

**Recycling:** **EN ISO 14021**

<sup>1)</sup> Acc. DIN V 18160-1 components of chimney systems may also be used as connection pieces.