Technical and Test Institute for Construction Prague
Prosecká 811/76a
190 00 Prague
Czech Republic
tel.: +420 286 019 400
www.tzus.cz

Member of EOTA
www.eota.eu

European Technical Assessment

ETA 23/0919 of 22/12/2023

General Part

Technical Assessment Body issuing the European Technical Assessment:
Technical and Test Institute for Constructions Prague (TZUS)

Trade name of the construction product	**Terrace decking kit Terafest**
Product family to which the construction product belongs	Terrace decking kit
Manufacturer	**WPC – WOODPLASTIC, a.s.** V Celnici 1034/6, 110 00 Praha 1, Czech Republic
Manufacturing plant(s)	**WPC – WOODPLASTIC a.s.** Bukovany 181, 257 41 Týnec nad Sázavou Czech Republic
This European Technical Assessment contains	11 pages
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	European Assessment Document (EAD) No : 190005-00-0402 Terrace decking kit

Specific parts

1. Technical description of the product

The terrace decking kit **Terafest** consists of decking profiles, support rail profiles, cover strip profiles and fastening devices. The decking profiles and cover strip profiles are made of WPC composite. The support rail profiles are made of the same WPC composite or aluminium. The fastening devices are from stainless steel or stainless steel with plastic.

The composite consists of thermoplastics (HDPE), wood flour, aditives, processing agents and colorants. Detailed material composition is stated in technical documentation of producer "Technical characteristics WPC composite terrace decking boards produced by WPC- WOODPLASTIC a.s." dated June 2023".

The terrace decking boards are produced in 7 types of profiles:
137 CLASSIC, AMBIENTE, 195 MAX, 140 INFINIT, STEP, SMART and **PROFILE 150** with 8 different surface designs :
Smooth, Groove, Forest, Rustic, Natur, Art, Line, Ring
and several colours.
The dimensions of decking profiles, support rail profiles, end strip profiles and fastening devices are indicated in Annex A.
Surface types are listed in Annex B.
The screws which shall have CE marking are not part of the kit.

All mounting and fixing details shall be executed according to the manufacturer´s installation manual.

2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

2.1 Intended use

The terrace decking kit Terafest is intended for using as floring construction of external terraces..

The support rail profiles are installed always on horizontal load bearing substrate like sloped concrete slab, compacted gravel-sand beds with concrete curbs. The decking profiles are installed on to support rail profiles using hidden fastening devices and screws. The maximum spacing between the support profiles are stated in Table No.1 :

Table No.1.

Type of decking board installed perpendicularly to the support profiles	The maximum spacing between the support profiles
137 CLASSIC, SMART, 140 INFINITE	300 mm
195 MAX	400 mm
AMBIENTE, STEP, PROFILE 150	250 mm

End strip profiles are used to cover the ends of the decking profiles.

The ETA is issued for the above mentioned product on the basis of agreed data/information, deposited with the Technical Assessment Body - Technical and Test Institute for Construction Prague, which identifies the products that have been assessed.

2.2 Assumed working life

Provisions made in this European Technical Assessment are based on an assumed intended working life of 10 years, provided that the assembled product is subject to appropriate use and maintenance in accordance with this ETA.

Indications given regarding the working life cannot be interpreted as a guarantee given by the producer or the Technical and Test Institute for Construction Prague, but are to be regarded only as a mean for choosing the appropriate product(s) in relation to the expected economically reasonable working life of the construction works.

3. Performance of the product and references to the methods used for its assessment

The characteristics of product and methods of verification of terrace decking kit Terafest were carried out in compliance with the EAD No : 190005-00-0402:2017

Table No. 2: Essential characteristics: all types and all surfaces of boards (if not stated otherwise)

No	Essential characteristic and method of verification and assessment	Expression of product performance		
Basic Works Requirement 2: Safety in case of fire				
1	Reaction to fire (Cl.2.2.1 of EAD 190005-00-0402)	Class C_{fl} – s1		
Basic Works Requirement 3: Hygiene, health and the environment				
2	Influence of moisture (Cl.2.2.2 of EAD 190005-00-0402) (mean values)	Swelling in thickness		2,4 %
		Water absorbtion		3,0 %
Basic Works Requirement 4: Safety and accessibility in use				
3	Bending strength and modulus of elasticity (Cl.2.2.3 of EAD 190005-00-0402) (mean values)	Type	Bending strength	Modulus of elasticity
		137 CLASSIC, SMART, 140 INFINIT	28,6 MPa	5114 MPa
		195 MAX	30,4 MPa	5205 MPa
		AMBIENTE, STEP, PROFILE 150	24,5 MPa	4346 MPa

No	Essential characteristic and method of verification and assessment	Expression of product performance		
4	Impact strength (Cl.2.2.4 of EAD 190005-00-0402)	23°C, 20 J - pass -10°C, 20 J - pass		
5	Creep factor (Cl.2.2.5 of EAD 190005-00-0402)	No performance assessed		
6	Slipperiness (longitudinal/cross direction) (Cl.2.2.6 of EAD 190005-00-0402)	Surface design	dry	wet
		Smooth	72/85	57/65
		Groove	80/98	52/72
		Forest	93/94	54/60
		Rustic	67/84	44/59
		Natur	81/93	44/54
		Art	60/85	43/57
		Line	83/101	51/72
		Ring	91/99	45/64
7	Pull-through strength of the fasteners (Cl.2.2.7 of EAD 190005-00-0402)	Standard clamp		2,71 MPa
		AL Standard clamp		2,72 MPa
8	Moisture resistance under cyclic condition - decrease of bending strength and modulus of elasticity (mean / maximum individual value) (Cl.2.2.8 of EAD 190005-00-0402)	Type	Decrease of bending strength	Decrease of modulus of elasticity
		137 CLASSIC, SMART, 140 INFINITE	mean 6,0% max. 7,5%	mean 14,1% max. 17,9%
		195 MAX	mean 6,6% max. 8,2%	mean 15,4% max. 17,9%
		AMBIENTE, STEP, PROFILE 150	mean 8,3% max. 11,0%	mean 15,6% max. 17,5%

No	Essential characteristic and method of verification and assessment	Expression of product performance	
9	UV- radiation resistance (Cl.2.2.9 of EAD 190005-00-0402) expressed as Charpy impact strength - before ageing - after ageing (method A 1000h) (mean values)	2,58 kJ/m² 2,61 kJ/m²	
10	Thermal expansion (Cl.2.2.10 of EAD 190005-00-0402) (mean value)	Range -40 to +30 °C	No performance assessed
		Range +30 to +80 °C	2,57 .10⁻⁵ %
11	Resistance against termites (Cl.2.2.11 of EAD 190005-00-0402)	No performance assessed	
12	Surface hardness (Cl.2.2.12 of EAD 190005-00-0402)	Surface design	
		Groove	30 N/mm²
		Forest	91 N/mm²
		Rustic	63 N/mm²
13	Density (Cl.2.2.13 of EAD 190005-00-0402)	1,21-1,24 g/cm³	
Basic Works Requirement 6: Energy economy and heat retention			
14	Thermal conductivity λ (Cl.2.2.14 of EAD 210138-00-0504)	0,072 W/(m·K)	

4. Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

For the products covered by this ETA the applicable European legal act is:

Decision 97/808/EC, amended by Decisions 199/453/EC, 2001/596/EC and 2001/596/EC.

For aplications subject to reaction to fire requirements the AVCP systems is : 3

For all aplications the AVCP systems is : 4

(See Annex V to Regulation (EU) No. 305/2011)

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

5.1 General

The manufacturer's documentation includes:

- detailed description of the products,
- incoming (raw) materials specifications and declarations,
- technical data sheets of the products
- decription of basic manufacturing process
- control plan, that specifies the type and frequency of checks/tests conducted during production and on the final product

Where confidentiality of information is required, this ETA makes reference to the manufacturer's technical documentation which contains such information.

5.2 Tasks for the manufacturer

5.2.1 Factory production control (System 3 and System 4)

The manufacturer shall exercise permanent factory production control. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this ETA.

The manufacturer shall only use components stated in the technical documentation of this ETA. The incoming raw materials are subjected to verifications by the manufacturer before acceptance.

The factory production control shall be in accordance with the control plan defined by the manufacturer which is part of the technical documentation of this European Technical Assessment and is deposited with TZUS. The results of factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

Technical Assessment and is deposited with TZUS. The results of factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

5.2.2 Other tasks for the manufacturer

For assessing the terrace decking kits the results of the tests performed as part of the assessment for the ETA shall be used unless there are changes in the production line or plant.

Changes to the product, its production or its application process should be notified to TZUS before the changes are introduced. TZUS will decide whether or not such changes affect the ETA and if so whether further assessment, testing or alterations to the ETA shall be necessary. In cases where the provisions of the ETA and its control plan are no longer fulfilled, the manufacturer shall withdraw the declaration(s) of performance issued and inform TZUS without delay.

5.3 Tasks of the notified body (System 3, 4)

This ETA can be considered as the assessment of the performance of the product in accordance with point 1.6 in Annex V of the European Parliament and Council Regulation No. 305/2011/EU. Therefore, there is no involvement of a notified body after the ETA has been issued.

Issued in Prague on 22/12/2023

By

Ing. Jiří Studnička, Ph.D.
Head of the TAB

TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague
TZÚS
Czech Republic
Technical Assessment Body
Subjekt pro technické posuzování

Annexes :

A. Dimensions of decking profiles, support rail profiles, end strip profiles and fastening devices

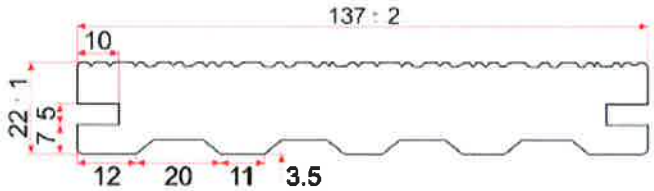
B. Surface types

Annex A

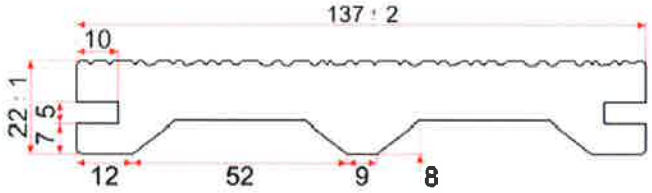
Dimensions of decking profiles, support rail profiles, end strip profiles and fastening devices

1. Decking Profiles

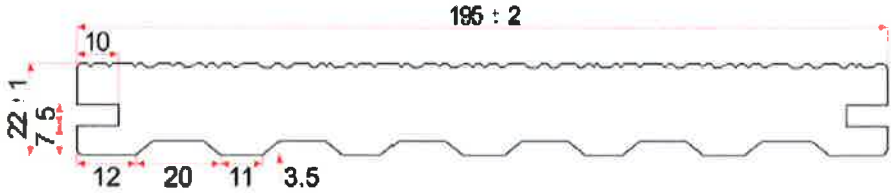
137 CLASSIC



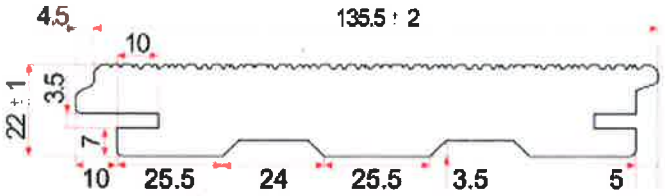
AMBIENTE



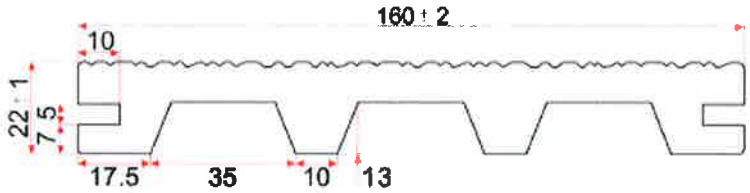
195 MAX



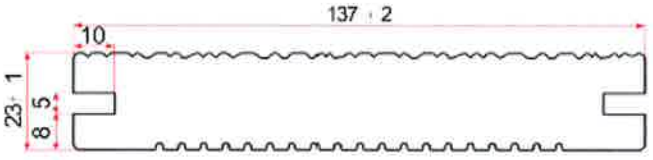
140 INFINIT



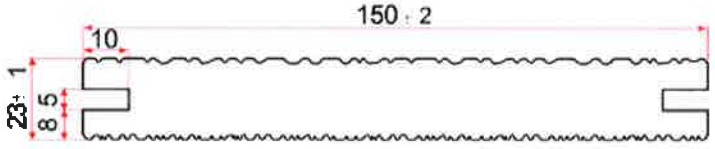
STEP



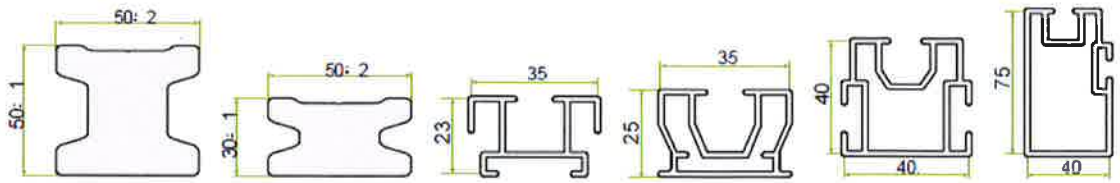
SMART



PROFILE 150

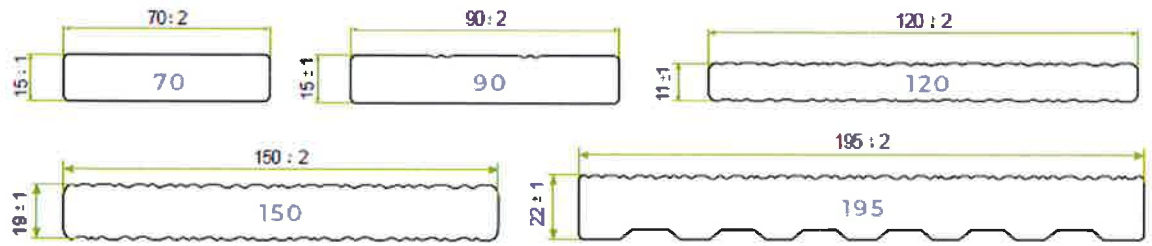


2. Support rail profiles



WPC 50 WPC 30 AL 23 AL 25 AL 40 AL 75

3. End strip profiles (WPC)



4. Fastening devices/clamps

	Type	Material	Suitable for profile	
			Other profiles	140 INFINIT
	Start clamp	Stainless steel A2/A4	x	x
	Standard clamp	Stainless steel A2/A4	x	
	Standard clamp for profile 140 INFINIT	Stainless steel A2		x
	Bilateral clamp for profile 140 INFINIT	Stainless steel A2/A4		x
	Profi clamp Start	Stainless steel A2	x	x
	AL standard clamp	Plastic/ Stainless steel A2	x	
	AL start clamp	Stainless steel A2	x	x

Annex B

Surface designs

Smooth

Natur

Groove

Art

Forest

Line

Rustic

Ring