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European Technical Assessment

ETA 23/0477
of 02/06/2025

General Part

Technical Assessment Body issuing the European Technical Assessment:

Technical and Test Institute for Construction Prague SOE

Trade name of the construction products:

BICO EXPERT 145 g
TERRA PROFESSIONAL 145 g
BICO EXPERT 145 g (TR)
BICO EXPERT 160 g
TERRA PROFESSIONAL 160 g
BICO EXPERT 160 g (TR)
TERRA PROFESSIONAL 160 g (TR)
BICO EXPERT 165 g
BICO EXPERT 205 g

- glass fibre meshes for reinforcement of
cementitious or cement based renderings

**Product family to which the construction
product belongs:**

Product area code: 4 Thermal insulation
products. Composite insulating kits/systems

Manufacturer:

S.C. BICO INDUSTRIES S.A.
Street Petru Movila, nr. 31
Piatra Neamt, Romania

Manufacturing plant(s):

Plant 1:

S.C. BICO INDUSTRIES S.A.
Street Metalurgiei, nr. 1
Vaslui, Romania

Plant 2:

ICS TERRA IMPEX SRL
Str Vl. Korolenko 6
Vulcanesti, MD 5301, Republic of Moldova

**This European Technical Assessment
contains:**

22 pages

**This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of:**

EAD 040016-01-0404 Glass fibre mesh for
reinforcement of cementitious or cement
based renderings

**This European Technical Assessment
replaces:**

ETA 23/0477 issued on 19/07/2023

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Specific part

1. Technical description of the product

1.1 General

BICO EXPERT 145 g, TERRA PROFESSIONAL 145 g, BICO EXPERT 145 g (TR), BICO EXPERT 160 g, TERRA PROFESSIONAL 160 g, BICO EXPERT 160 g (TR), TERRA PROFESSIONAL 160 g (TR), BICO EXPERT 165 g and BICO EXPERT 205 g are rectangular glass fibre meshes for reinforcement of cementitious or cement based renderings made of glass fibre strands.

According to the manufacturer technical specification the type of the glass of fibre mesh is **ECR glass**.

The types **BICO EXPERT 145 g, TERRA PROFESSIONAL 145 g, BICO EXPERT 160 g, TERRA PROFESSIONAL 160 g, BICO EXPERT 165 g and BICO EXPERT 205 g** are made by **leno woven** technology.

The types **BICO EXPERT 145 g (TR), BICO EXPERT 160 g (TR) and TERRA PROFESSIONAL 160 g (TR)** are made by **warp-knitting** technology.

To provide resistance to alkali conditions, they are coated by an organic layer. The distance of strands is at least 3 mm so that the reinforced rendering or mortar sufficiently penetrates the meshes.

List of the meshes and manufacturing plants:

S.C. BICO INDUSTRIES S.A., Street Metalurgiei, nr. 1, Vaslui, Romania

- **BICO EXPERT 145 g**
- **TERRA PROFESSIONAL 145 g**
- **BICO EXPERT 145 g (TR)**
- **BICO EXPERT 160 g**
- **TERRA PROFESSIONAL 160 g**
- **BICO EXPERT 160 g (TR)**
- **TERRA PROFESSIONAL 160 g (TR)**
- **BICO EXPERT 165 g**
- **BICO EXPERT 205 g**

ICS TERRA IMPEX SRL, Str VI. Korolenko 6, Vulcanesti, MD 5301, Republic of Moldova

- **TERRA PROFESSIONAL 145 g**
- **BICO EXPERT 145 g**
- **TERRA PROFESSIONAL 160 g**
- **BICO EXPERT 160 g**
- **TERRA PROFESSIONAL 160 g (TR)**
- **BICO EXPERT 160 g (TR)**

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

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

The product is used as reinforcement of cementitious base coats (e.g. of ETICS). Nominal thickness of reinforced layer is usually of 2 mm up to 15 mm. The reinforcement shall be embedded into a fresh mortar and sufficiently covered. The maximum particle size of aggregate used in rendering in relation to the mesh opening has to be taken into account to prevent the damage of the mesh during application and its action as a separation layer in renderings (base coats).

The reinforcement prevents the surface of hardened rendering from cracking, caused by shrinkage.

The assessment methods included or referred to in EAD 040016-01-0404 have been written based on the manufacturer's request to take into account a working life of the glass fibre mesh for reinforcement of cement based renderings for the intended use of 25 years when installed in the works (provided that the glass fibre mesh for reinforcement of cement based renderings is subject to appropriate installation). These provisions are based upon the current state of the art and the available knowledge and experience.

The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works¹.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee but are regarded only as a means for expressing the expected economically reasonable working life of the product.

¹ The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than the working life referred to above.

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

The essential characteristics of glass fibre mesh for reinforcement of cementitious or cement based renderings **BICO EXPERT 145 g**, **TERRA PROFESSIONAL 145 g**, **BICO EXPERT 145 g (TR)**, **BICO EXPERT 160 g**, **TERRA PROFESSIONAL 160 g**, **BICO EXPERT 160 g (TR)**, **TERRA PROFESSIONAL 160 g (TR)**, **BICO EXPERT 165 g** and **BICO EXPERT 205 g** and methods of verification were carried out in compliance with the *EAD 040016-01-0404: Glass fibre meshes for reinforcement of cementitious or cement based renderings*. Expression of product performance is stated in Tables No. 3.1.1 - Table No. 3.2.3.

3.1. Products manufactured in plant S.C. BICO INDUSTRIES S.A.

Table No. 3.1.1: BICO EXPERT 145 g (alt. trade name TERRA PROFESSIONAL 145 g)

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 145 g / TERRA PROFESSIONAL 145 g	
Safety in case of fire (BWR 2)			
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed	
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)
		80.4 % (at 625 °C)	19.6 % (at 625 °C)
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]	
		7.602 MJ/kg	
		Heat combustion Q_{PCS} [MJ/m²]	
		1.108 MJ/m²	
Hygiene, health and the environment (BWR 3)			
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed
		Content of cadmium	
Safety and accessibility in use (BWR 4)			
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.0 x 4.7 mm
		Average mesh opening <i>(warp direction x weft direction)</i>	4.3 x 3.6 mm
		Coverage ratio [%]	35 %

6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length		
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			10	11
		In the initial state - tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ϵ_m	warp direction	weft direction
			40 kN/m 1995 N/50 mm 4.2 %	50 kN/m 2507 N/50 mm 3.9 %
			After alkalis conditioning - tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ϵ - residual value of tensile strength $\Delta T_{max,ag}$	warp direction
		35 kN/m 1730 N/50 mm 3.5 % 86.7 %	42 kN/m 2106 N/50 mm 3.1 % 84.0 %	
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	146 g/m ²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

Table No. 3.1.2: BICO EXPERT 145 g (TR)

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 145 g (TR)		
Safety in case of fire (BWR 2)				
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed		
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)	
		76.6 % (at 625 °C)	23.4 % (at 625 °C)	
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]		
		8.347 MJ/kg		
		Heat combustion Q_{PCS} [MJ/m²]		
		1.178 MJ/m²		
Hygiene, health and the environment (BWR 3)				
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed	
		Content of cadmium		
Safety and accessibility in use (BWR 4)				
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.0 x 6.1 mm	
		Average mesh opening <i>(warp direction x weft direction)</i>	4.1 x 4.7 mm	
		Coverage ratio [%]	38 %	
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed	
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			10	8

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		BICO EXPERT 145 g (TR)		
		In the initial state	warp direction	weft direction
		- tensile strength $T_{max,m}$	35 kN/m	39 kN/m
		- tensile strength $R_{50,m}$	1730 N/50 mm	1930 N/50 mm
		- elongation ϵ_m	2.6 %	3.6 %
		After alkalis conditioning	warp direction	weft direction
		- tensile strength $T_{max,m}$	29 kN/m	28 kN/m
		- tensile strength $R_{50,m}$	1441 N/50 mm	1397 N/50 mm
		- elongation ϵ	2.0 %	2.4 %
		- residual value of tensile strength $\Delta T_{max,ag}$	82.9 %	71.8 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	141 g/m²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

Table No. 3.1.3: BICO EXPERT 160 g (alt. trade name TERRA PROFESSIONAL 160 g)

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 160 g / TERRA PROFESSIONAL 160 g		
Safety in case of fire (BWR 2)				
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed		
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)	
		80.8 % (at 625 °C)	19.2 % (at 625 °C)	
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]		
		7.209 MJ/kg		
		Heat combustion Q_{PCS} [MJ/m²]		
		1.137 MJ/m²		
Hygiene, health and the environment (BWR 3)				
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed	
		Content of cadmium		
Safety and accessibility in use (BWR 4)				
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	4.0 x 5.0 mm	
		Average mesh opening <i>(warp direction x weft direction)</i>	3.3 x 3.7 mm	
		Coverage ratio [%]	40 %	
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No singularities or defects	
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			13	10

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		BICO EXPERT 160 g / TERRA PROFESSIONAL 160 g		
		In the initial state	warp direction	weft direction
		- tensile strength $T_{max,m}$	50 kN/m	51 kN/m
		- tensile strength $R_{50,m}$	2512 N/50 mm	2561 N/50 mm
		- elongation ϵ_m	4.2 %	4.0 %
		After alkalis conditioning	warp direction	weft direction
		- tensile strength $T_{max,m}$	41 kN/m	43 kN/m
		- tensile strength $R_{50,m}$	2053 N/50 mm	2160 N/50 mm
		- elongation ϵ	3.3 %	3.2 %
		- residual value of tensile strength $\Delta T_{max,ag}$	81.9 %	84.4 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	158 g/m²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

Table No. 3.1.4: BICO EXPERT 160 g (TR) (alt. trade name TERRA PROFESSIONAL 160 g (TR))

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 160 g (TR) / TERRA PROFESSIONAL 160 g (TR)		
Safety in case of fire (BWR 2)				
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed		
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)	
		74.7 % (at 625 °C)	25.3 % (at 625 °C)	
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]		
		9.454 MJ/kg		
		Heat combustion Q_{PCS} [MJ/m²]		
		1.506 MJ/m²		
Hygiene, health and the environment (BWR 3)				
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed	
		Content of cadmium		
Safety and accessibility in use (BWR 4)				
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.1 x 5.0 mm	
		Average mesh opening <i>(warp direction x weft direction)</i>	4.1 x 3.7 mm	
		Coverage ratio [%]	41 %	
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed	
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			10	10

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		BICO EXPERT 160 g (TR) / TERRA PROFESSIONAL 160 g (TR)		
		In the initial state	warp direction	weft direction
		- tensile strength $T_{max,m}$	31 kN/m	49 kN/m
		- tensile strength $R_{50,m}$	1546 N/50 mm	2426 N/50 mm
		- elongation ϵ_m	2.3 %	3.6 %
		After alkalis conditioning	warp direction	weft direction
		- tensile strength $T_{max,m}$	27 kN/m	35 kN/m
		- tensile strength $R_{50,m}$	1349 N/50 mm	1752 N/50 mm
		- elongation ϵ	2.0 %	2.5 %
		- residual value of tensile strength $\Delta T_{max,ag}$	87.1 %	71.4 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	159 g/m²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

Table No. 3.1.5: BICO EXPERT 165 g

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 165 g		
Safety in case of fire (BWR 2)				
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed		
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)	
		80.4 % (at 625 °C)	19.6 % (at 625 °C)	
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]		
		7.653 MJ/kg		
		Heat combustion Q_{PCS} [MJ/m²]		
		1.369 MJ/m²		
Hygiene, health and the environment (BWR 3)				
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed	
		Content of cadmium		
Safety and accessibility in use (BWR 4)				
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	4.0 x 4.0 mm	
		Average mesh opening <i>(warp direction x weft direction)</i>	3.6 x 3.1 mm	
		Coverage ratio [%]	30 %	
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed	
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			13	13

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		BICO EXPERT 165 g		
		In the initial state	warp direction	weft direction
		- tensile strength $T_{max,m}$	38 kN/m	54 kN/m
		- tensile strength $R_{50,m}$	1878 N/50 mm	2680 N/50 mm
		- elongation ϵ_m	4.1 %	3.5 %
		After alkalis conditioning	warp direction	weft direction
		- tensile strength $T_{max,m}$	21 kN/m	51 kN/m
		- tensile strength $R_{50,m}$	1045 N/50 mm	2557 N/50 mm
		- elongation ϵ	2.4 %	3.4 %
		- residual value of tensile strength $\Delta T_{max,ag}$	55.3 %	94.4 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	179 g/m²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

Table No. 3.1.6: BICO EXPERT 205 g

No.	Essential characteristic and method of verification and assessment	Expression of product performance BICO EXPERT 205 g		
Safety in case of fire (BWR 2)				
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed		
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)	
		83.9 % (at 625 °C)	16.1 % (at 625 °C)	
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]		
		6.491 MJ/kg		
		Heat combustion Q_{PCS} [MJ/m²]		
		1.308 MJ/m²		
Hygiene, health and the environment (BWR 3)				
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed	
		Content of cadmium		
Safety and accessibility in use (BWR 4)				
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size (warp direction x weft direction)	5.2 x 4.8 mm	
		Average mesh opening (warp direction x weft direction)	4.6 x 3.9 mm	
		Coverage ratio [%]	28 %	
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed	
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)		
		A gap over treble distance of wefts or warps in any length		
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)		
		A cracked thread		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			10	10

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		BICO EXPERT 205 g		
		In the initial state - tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ε_m	warp direction	weft direction
			60 kN/m 3020 N/50 mm 4.4 %	33 kN/m 1630 N/50 mm 2.8 %
		After alkalis conditioning - tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ε - residual value of tensile strength $\Delta T_{max,ag}$	warp direction	weft direction
			31 kN/m 1562 N/50 mm 2.5 % 51.7 %	28 kN/m 1409 N/50 mm 2.3 % 84.8 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	202 g/m²		
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

3.2. Products manufactured in plant ICS TERRA IMPEX SRL

Table No. 3.2.1: TERRA PROFESSIONAL 145 g (alt. trade name BICO EXPERT 145 g)

No.	Essential characteristic and method of verification and assessment	Expression of product performance TERRA PROFESSIONAL 145 g / BICO EXPERT 145 g	
Safety in case of fire (BWR 2)			
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed	
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value) 78.9 % (at 625 °C)	Organic content (average value) 21.1 % (at 625 °C)
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg] 9.118 MJ/kg Heat combustion Q_{PCS} [MJ/m²] 1.379 MJ/m²	
Hygiene, health and the environment (BWR 3)			
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances Content of cadmium	No performance assessed
Safety and accessibility in use (BWR 4)			
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.0 x 5.3 mm
		Average mesh opening <i>(warp direction x weft direction)</i>	4.5 x 4.1 mm
		Coverage ratio [%] <i>(calculated from historical data of average mesh opening and average mesh size)</i>	28 %
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube) A gap over treble distance of wefts or warps in any length Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule) A cracked thread	No performance assessed

No.	Essential characteristic and method of verification and assessment	Expression of product performance			
		TERRA PROFESSIONAL 145 g / BICO EXPERT 145 g			
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction	
			10	9	
		In the initial state	warp direction	weft direction	
			- tensile strength $T_{max,m}$	35 kN/m	56 kN/m
			- tensile strength $R_{50,m}$	1756 N/50 mm	2803 N/50 mm
		- elongation ϵ_m	3.7 %	4.2 %	
After alkalis conditioning	warp direction	weft direction			
	- tensile strength $T_{max,m}$	26 kN/m	35 kN/m		
	- tensile strength $R_{50,m}$	1289 N/50 mm	1750 N/50 mm		
	- elongation ϵ	2.6 %	2.5 %		
- residual value of tensile strength $\Delta T_{max,ag}$	74.3 %	62.5 %			
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	151 g/m ²			
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed			

Table No. 3.2.2: TERRA PROFESSIONAL 160 g (alt. trade name BICO EXPERT 160 g)

No.	Essential characteristic and method of verification and assessment	Expression of product performance TERRA PROFESSIONAL 160 g / BICO EXPERT 160 g	
Safety in case of fire (BWR 2)			
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed	
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)
		79.3 % (at 625 °C)	20.7 % (at 625 °C)
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]	
		9.035 MJ/kg	
		Heat combustion Q_{PCS} [MJ/m²]	
		1.477 MJ/m²	
Hygiene, health and the environment (BWR 3)			
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed
		Content of cadmium	
Safety and accessibility in use (BWR 4)			
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.0 x 4.7 mm
		Average mesh opening <i>(warp direction x weft direction)</i>	4.6 x 3.5 mm
		Coverage ratio [%] <i>(calculated from historical data of average mesh opening and average mesh size)</i>	31 %
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)	
		A gap over treble distance of wefts or warps in any length	
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)	
		A cracked thread	

No.	Essential characteristic and method of verification and assessment	Expression of product performance			
		TERRA PROFESSIONAL 160 g / BICO EXPERT 160 g			
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction	
			10	11	
		In the initial state	warp direction	weft direction	
			- tensile strength $T_{max,m}$	35 kN/m	59 kN/m
			- tensile strength $R_{50,m}$	1742 N/50 mm	2928 N/50 mm
		- elongation ϵ_m	4.0 %	3.8 %	
After alkalis conditioning	warp direction	weft direction			
	- tensile strength $T_{max,m}$	22 kN/m	35 kN/m		
	- tensile strength $R_{50,m}$	1100 N/50 mm	1741 N/50 mm		
	- elongation ϵ	2.6 %	2.2 %		
	- residual value of tensile strength $\Delta T_{max,ag}$	62.9 %	59.3 %		
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	163 g/m²			
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed			

Table No. 3.2.3: TERRA PROFESSIONAL 160 g (TR) (alt. trade name BICO EXPERT 160 g (TR))

No.	Essential characteristic and method of verification and assessment	Expression of product performance TERRA PROFESSIONAL 160 g (TR) / BICO EXPERT 160 g (TR)	
Safety in case of fire (BWR 2)			
1	Reaction to fire (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	No performance assessed	
2	Organic content (EAD 040016-01-0404, Cl. 2.2.2)	Ash content (average value)	Organic content (average value)
		75.4 % (at 625 °C)	24.6 % (at 625 °C)
3	Gross heat of combustion (EAD 040016-01-0404, Cl. 2.2.3)	Heat combustion Q_{PCS} [MJ/kg]	
		8.430 MJ/kg	
		Heat combustion Q_{PCS} [MJ/m²]	
		0.924 MJ/m²	
Hygiene, health and the environment (BWR 3)			
4	Content, emission and/or release of dangerous substances (EAD 040016-01-0404, Cl. 2.2.4)	Leachable substances	No performance assessed
		Content of cadmium	
Safety and accessibility in use (BWR 4)			
5	Mesh size (EAD 040016-01-0404, Cl. 2.2.5)	Average mesh size <i>(warp direction x weft direction)</i>	5.3 x 5.2 mm
		Average mesh opening <i>(warp direction x weft direction)</i>	4.2 x 3.8 mm
		Coverage ratio [%] <i>(calculated from historical data of average mesh opening and average mesh size)</i>	42 %
6	Weaving accuracy (EAD 040016-01-0404, Cl. 2.2.6)	An untrimmed edge in any length	No performance assessed
		Deflected (uneven) fronts of rolls over ± 5 mm (measured from the edge of the inner tube)	
		A gap over treble distance of wefts or warps in any length	
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)	
		A cracked thread	

No.	Essential characteristic and method of verification and assessment	Expression of product performance		
		TERRA PROFESSIONAL 160 g (TR) / BICO EXPERT 160 g (TR)		
7	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft direction
			10	10
		In the initial state	warp direction	weft direction
		- tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ϵ_m	47 kN/m 2327 N/50 mm 3.8 %	44 kN/m 2215 N/50 mm 3.5 %
8	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	After alkalis conditioning	warp direction	weft direction
		- tensile strength $T_{max,m}$ - tensile strength $R_{50,m}$ - elongation ϵ - residual value of tensile strength $\Delta T_{max,ag}$	30 kN/m 1501 N/50 mm 2.3 % 63.8 %	29 kN/m 1427 N/50 mm 2.0 % 65.9 %
9	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	No performance assessed		

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

According to the European Commission decision 97/556/EC, the **AVCP system 2+** (further described in Annex V to Regulation (EU) No 305/2011 as amended) applies.

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

The manufacturer shall perform a permanent internal factory production control based on the control plan. The Control Plan specifies the type, test method, criteria and frequency of tests conducted on the final product.

The control plan for the manufacturer/corner stones (factory production control) is specified in Cl. 3.2 of EAD 040016-01-0404 *Glass fibre mesh for reinforcement of cement based renderings*. Manufacturer and Technical and Test Institute for Construction Prague SOE have agreed a control plan which is deposited with the Technical and Test Institute for Construction Prague SOE in documentation which accompanies the ETA.

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By
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