

**BÁSIC CHARACTERISTICS:**

Series name:	LIVORNO
Material name:	LIVORNO TOPO PW
Nominal dimension, N:	60 cm x 60 cm
Production unit, W:	600 mm x 600 mm x 9.0 mm
Colour:	TOPO
Family:	BASE LISA
Finish:	MATE
Water absorption group:	Bla
Nature of the surface:	ESMALTADO, GL
Surface treatment applied after baking:	
Aesthetic classification and shading:	
Number of different faces:	



**DIMENSIONS AND SURFACE APPEARANCE:**

Determination of dimensional characteristics and surface quality:	Cumple	UNE EN ISO 10545-2
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**PHYSICAL PROPERTIES:**

Water absorption:	Ev < 0.5% (Grupo/Group Bla)	UNE EN ISO 10545-3
Breaking strength:	>=1300 N	UNE EN ISO 10545-4 Fuerza de rotura
Bending strength:	>=35 N/mm <sup>2</sup>	UNE EN ISO 10545-4 Resistencia a la flexión
Deep abrasion resistance:		UNE EN ISO 10545-6
Surface abrasion resistance:	4	UNE EN ISO 10545-7
Coefficient of linear thermal expansion:	<9x10 <sup>-6</sup> (-6)°C <sup>-1</sup>	UNE EN ISO 10545-8
Thermal shock resistance:	Cumple	UNE EN ISO 10545-9
Crazing resistance:	Cumple	UNE EN ISO 10545-11
Frost resistance:	Cumple	UNE EN ISO 10545-12
Slip resistance:		UNE EN 16165 Anexo B(DIN 51130 Apdo. 5 Rampa pie calzado)
		UNE EN 16165 Anexo A(DIN 51097 Rampa pie descalzo)
	C1	UNE EN 16165 Anexo C(UNE 41901:2017 EX)
		UNE EN 16165 Anexo C(BS 7976-2 Pendulum testers)
		ANSI A137.1 Section 9.6.1, DCOF
Fire performance:	A1-A1 FL	-
Adhesión: Adhesivo cementoso	Tipo C2 > 1 N/mm <sup>2</sup>	EN 12004 + A1

**CHEMICAL PROPERTIES:**

Stain resistance:	5	UNE EN ISO 10545-14
Chemical resistance:	LA/HA	UNE EN ISO 10545-13 Ácidos y bases
	A	UNE EN ISO 10545-13 Productos de limpieza

**CEE MARKING**



**CERTIFICATE UPEC**

**SYSTEM CERTIFICATES**



Design, development and manufacture of ceramic flooring and tiling.

**IMPORTANT NOTES:**

Before installing the product, check its tone, calibre and quality. No claims will be accepted after the material has been installed. Protecting the product during installation and cleaning it correctly after pointing and construction work play a part in the correct installation process. For more information on installation and pointing, visit the UNDEFASA, S.A. website: [www.undefasa.com](http://www.undefasa.com). The packing list for this piece is shown in the UNDEFASA, S.A. catalogue. The indicated weight is approximate and may vary by up to 5%, depending on the model. In the case of a product with a relief, this variation could be greater. This document is purely for commercial information purposes. It may not be used as a legal or administrative argument without the express authorisation of UNDEFASA, S.A. The colour and finish shown in this technical data sheet's image are merely illustrative and may differ from the finish of the real piece. To ensure correct tiling using ceramic tiles, we recommend consulting the Spanish UNE 138002 Standard.