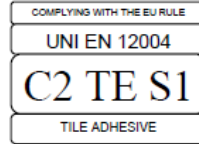


## ROYAL FLEX



### DESCRIPTION OF THE PRODUCT

Improved cementitious tile adhesive designed for indoor and outdoor installation of ceramic, porcelain (grès) tiles, and stone materials (provided they are not moisture-sensitive) on both floors and walls.

Classified according to **UNI EN 12004 (C2TES1)**: cementitious adhesive with improved adhesion, extended open time, reduced slip, and deformability.

Formulated by WINKLER Research & Development Laboratories.

### FIELDS OF USE

Pre-mixed product with high adhesive strength, suitable for both indoor and outdoor applications. It is designed for installing all types of ceramic flooring on various substrates such as cement screeds, heated floors, self-levelling compounds, plasters, and waterproofing coatings from the WINKLER range, including **WINGRIP BITUMINOSO** and **WFZ5 - WINFLEX CEMENT**.

Thanks to its deformability (**S1**), **ROYAL FLEX** effectively accommodates substrate and coating movements without causing detachment.

It can be applied in thicknesses from 3 mm to 10 mm without prior surface levelling. For substrates with irregularities greater than 10 mm, use self-levelling products such as **WINLIVEL** or **WINLIVEL RAPID** for horizontal surfaces, and **WR05-WINTONAC** for vertical surfaces.

### SURFACE PREPARATION

Ensure that the substrate is sound, properly cured, free from cracks, and compliant with the requirements specified in the **UNI EN 11493-1** standard.

Thoroughly clean the surface to remove salts, oils, grease, loose or friable material, and any foreign or non-adherent substances.

For substrates that are difficult to wet, such as existing ceramic tiles for over-application, after thorough cleaning, apply **WINGRIP NEXT** (refer to the technical data sheet) at a rate of 300 g/m<sup>2</sup>. Wait two hours before proceeding with the installation.

For screed preparation, use **WINPLAN 370**, a quick-drying screed, or **WINPLAN PRO**, a quick-drying screed with low water absorption.

## WARNING

Do not add cement or any additives.  
Do not use the product if the packaging is damaged.  
Do not add water once the mix has begun to set.

## PRECAUTIONS

Protect newly laid coverings from direct sunlight, high temperatures, and freezing conditions for at least 24 hours. High or very low temperatures, strong winds, or adverse weather conditions may affect the open time and setting of the adhesive.

For existing coatings or surfaces with low wettability, use **WINGRIP NEXT** as an adhesion promoter.

For the design, installation, and maintenance of floors using **ROYAL FLEX** refer to the provisions of **UNI EN 11493-1**.

Apply at temperatures between +5°C and +35°C.

## APPLICATION

Mix thoroughly with clean water (6-6.5 L per bag) until a smooth, homogenous mixture is obtained. Allow the mixture to rest for approximately 3 minutes before proceeding with the application. Apply the product with a notched trowel suitable for the required adhesive thickness and tile size.

For large-sized coverings (with a surface area greater than 900cm<sup>2</sup>), or when a full-bed application is required according to **UNI EN 11493-1**, apply **ROYAL FLEX** using the double-spreading technique – applying adhesive both to the substrate and the back of the covering. This ensures full contact and greater mechanical strength.

The open time of **ROYAL FLEX** is approximately 30 minutes at +23°C but may decrease under condition of high temperature, strong wind, or very absorbent substrates. We recommend always checking the adhesive layer in advance to ensure no dry surface film is present, as this could impair tile wettability. If such a film forms, apply a fresh layer of adhesive.

For very hot and/or highly absorbent substrates, it is advisable to moisten the surface and wait for complete evaporation of surface water before applying **ROYAL FLEX**.

## CONSUMPTION

1.1-1.3 kg/m<sup>2</sup> per mm of thickness

## PACKAGING

25 kg bags

## STORAGE

The product in its original and undamaged packaging, can be stored for up to 12 months. Store at temperatures between +5°C and 35 °C. The product is not frost-resistant.

## SAFETY INSTRUCTIONS

### PRECAUTIONS

For safety information, the user must refer to the latest Safety Data Sheet (SDS), prepared in accordance with applicable regulations. The SDS contains detailed information on the physical, toxicological, and safety characteristics of the product.

### DISPOSAL AND ENVIRONMENTAL PRECAUTIONS

Do not release the product or empty containers into the environment. For detailed disposal instructions, refer to the most recent Safety Data Sheet (SDS).

## TECHNICAL FEATURES (average value)

FEATURES	RESULTS
Appearance	Powder
Colour	White – Grey
Specific weight	1.5 ± 0.10 g/cm <sup>3</sup>
Recommended Mixing Water	6-6.5 L per bag 24-26%
Pot life at +23°C	>4 hours
Adjustment time at +23°C	40 minutes
Grouting at +23°C	After at least 24 hours

## CERTIFIED RESISTANCES OF THE PRODUCT IN OPERATION

According to UNI EN12004-2017

Performances determined and certified by SOCOTEC Italia S.r.l.

Tensile adhesive strength (UNI EN 1348)				
• Initial	≥ 1.0 N/mm <sup>2</sup>			
• After thermal ageing	≥ 1.0N/mm <sup>2</sup>			
• After water immersion	≥ 1.0 N/mm <sup>2</sup>			
• After freeze-thaw cycles	≥ 1.0 N/mm <sup>2</sup>			
Extended open time: tensile adhesive strength (UNI EN 1346)	after 5 min	after 10 min	after 20 min	after 30 min
	≥ 1.0 N/mm <sup>2</sup>	≥ 1.0 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
Slip resistance (UNI EN 1908)	≤ 0.5 mm			
Transversal Deformability (UNI EN 12002)	≥ 2.5mm			

## VOLATILE ORGANIC COMPOUNDS EMISSION

Parameter	Max. allowed concentration ( $\mu\text{g}/\text{m}^3$ )
TVOC after 3 days	$\leq 750$
TVOC after 28 days	$\leq 60$

Test performed by the EUROFINS Institute according to EN 16516, ISO 16000-3/6/9/11 and ASTM D5116-10. Test report n. 392-2017-00404102\_G\_EN\_02.

The product complies with the requirements of Directive 2003/53/EC.

### DISCLAIMER AND LEGAL NOTICE - WINKLER

The information and instructions contained in this Technical Data Sheet are prepared on the basis of WINKLER's best technical and application knowledge and are provided for guidance only. However, since WINKLER cannot directly control site conditions or the execution of works, these indications are in no way binding on WINKLER.

The data provided do not exempt the purchaser from the responsibility of verifying, through practical tests and comprehensive applications, the suitability of the product for the intended use and of determining whether it is appropriate for the desired application; the user assumes all responsibility arising from its use. The customer is also responsible for verifying that this Technical Data Sheet is valid for the batch of product of interest and that it has not been superseded by later editions. The updated Technical Data Sheet is available on WINKLER's official website.

The contents of this Technical Data Sheet may be reproduced in other project documents, but the resulting document may under no circumstances replace or supplement the Technical Data Sheet in force at the time of application of the WINKLER product. Any alteration of the text or conditions contained in this Technical Data Sheet or derived from it releases WINKLER from any liability. WINKLER reserves the right to make technical changes of any kind to its products and/or Technical Data Sheets without notice. This revision cancels and replaces all previous ones.