PRODUCT DATA SHEET

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CE

UNIBAR T

COMPLIANT WITH THE EUROPEAN STANDARD
UNI EN 13813
SR RWA10-IR4-B2,0
Materials for screeds

DESCRIPTION OF THE PRODUCT

Two-component, water-based epoxy formulation composed of special hardeners, fluid epoxy resins, and selected aggregates. It is designed for the creation of both self-levelling and multilayer flooring systems, even on substrates subject exposed to moisture.
Developed by WINKLER Research & Development Laboratories, it is formulated with selected solvent-free components.

UNIBAR T is solvent-free, low-emission, and breathable, allowing application even without the need for a vapour barrier. The product provides surface with good resistance to dilute acidic, alkaline, and saline solutions.

FIELDS OF USE

Suitable for the construction of flooring in the food, pharmaceutical, chemical, and mechanical industries, as well as in warehouses, offices, laboratories, garages, and underground car parks.

SURFACE PREPARATION

The concrete substrate must be flat, sound, compact, dust-free, and free from pollutants or contaminants. It must have a tensile (pull-off) strength of at least 1.5 MPa.
During application, the surface must be free from standing surface water. After completing any necessary repairs, shot blast (shot peen) the entire surface to obtain a clean, mechanically prepared profile.
In the case of friable or highly porous substrates that could cause blistering or bubbling, apply **WINFIX FISSATIVO** using a roller or brush at a rate of 100-200 g/m^2 in a single coat.
For tiled floors, ensure the tiles are firmly bonded to the substrate. Sand the entire surface thoroughly, then remove all dust and debris before application.

RECOMMENDATIONS

Do not use the product if the packaging is damaged.
Do not dilute the product with water or solvents.

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WARNINGS

Apply the product at temperatures between +10°C and +30°C with relative humidity below 70%. The substrate surface temperature must be at least +3°C above the dew point. Substrate temperatures below +10°C significantly slow down the hardening; do not apply the product under these conditions.
Avoid exposing components A and B to direct sunlight or storing them in areas subject to overheating (e.g. vans, trucks), as this significantly reduces workability. Do not use the product beyond its pot life.
Clean all tools and equipment with alcohol before the product hardens.

APPLICATION

Multilayer Use:

Pour Component B into Component A and mix thoroughly with a low-speed drill, without diluting.
Add 25% by weight of quartz (0.1-0.3 mm) to the mixture and homogenize thoroughly. Apply the prepared mixture with a smooth spatula. Consumption depends on the quartz used, but it is approximately 1.5-1.7 kg/m^2 of the mixture.

While the surface is still fresh, broadcast quartz at a rate of 1.5-2.0 kg/m^2 (see Note 1), selecting the quartz according to the desired surface roughness.

After 24 hours, remove any excess quartz and sand the surface to eliminate poorly adhered particles. Apply a skim coat of the product (Components A+B) using a smooth spatula. Consumption will vary depending on the amount of quartz used during dusting, typically 1.4-1.8 kg/m^2.

Multilayer Use on Tiled Floors:

Pour Component B into Component A and mix thoroughly with a low- speed drill, without diluting. Add 25% by weight of quartz (0.1-0.3 mm, seen Note 1) to the mixture and homogenize thoroughly.
To prevent leaks from the underlaying tiled floor, place a 140-160g/m^2 fiberglass mesh on the substrate. Apply the first coat of **UNIBAR T** to fully incorporate the mesh. While the product is still fresh, broadcast quartz (0.1-0.3 mm).

After 24 hours, remove any excess quartz and sand the surface to eliminate poorly adhered particles.

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Apply a coat of **UNIBAR T** loaded with 25% by weight of 0.1-0.3 mm quartz using a smooth spatula. Consumption depends on the quartz used, typically 1.5-1.7 kg/m^2 of the mixture. While the surface is still fresh, broadcast additional quartz at 1.5-2.0 kg/m^2 (see Note 1), selecting the quartz according to the desired surface roughness.

After 24 hours, remove any excess quartz and sand the surface to eliminate poorly adhered particles. Apply a skim coat of the product (Components A+B) using a smooth spatula. Consumption will vary depending on the amount of quartz used during dusting, typically 1.4-1.8 kg/m^2.

Self-levelling Use:
On the shot-peened surface, apply a coat of **WINFIX FISSATIVO**, suitably diluted with water, using a roller. This step fills micro-porosities, which could otherwise cause bubbling in subsequent layers.

Allow the **WINFIX FISSATIVO** to become clear and be fully absorbed by the substrate. Ensure there is no surface ponding or stagnation.

Mix Component B into Component A using a low-speed drill, without diluting, to prepare **UNIBAR T**. Apply **UNIBAR T** to the primed substrate using a toothed spatula, at a rate of 4-6 kg/m^2. Immediately work the surface with a bubble breaker roller. The resulting thickness will range from 1.5 to 2.0 mm, depending on material consumption.

As each cast is a separate application, it is recommended to perform a preliminary test to verify the cycle and achieve the desired finish.

Painting Application:
Apply two coats of **UNIBAR F** over the entire surface 24 hours after the last coat of **UNIBAR T**, allowing 24 hours between each coat.

CONSUMPTION
See cycle.

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PACKAGING
Component A: 20 kg bucket
Component B: 2 kg bucket

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	COMPONENT A	COMPONENT B
Appearance	Liquid	Liquid
Colour	Coloured	Clear
Density	2.00 g/cm^3	1.15 g/cm^3
Viscosity	4000 mPa.s*	800 mPa.s
Solid content	80%	100%

*Product is supplied unshaken to prevent unwanted sedimentation.
Optimal viscosity is achieved after gentle mixing before use.

winkler® Advanced Building Material
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UNIBAR T - APPLICATION DATA

FEATURES	RESULTS
Premixed A+B Components Mixing Ratio (A+B)	25 kg + 2.5 kg
Consistency after mixing	Fluid
Specific weight	1.89 g/cm^3
Pot life	45 min (+10°C) 30 min (+20°C) 20 min (+30°C)
Hardening time	20 h (+30°C) to 24 h (+20°C)
Full hardness	After 10 days

UNIBAR T – FINAL PERFORMANCE

FEATURES	RESULTS
Water Resistance	Excellent
Resistance to Diluted Acids and Bases	Excellent
Shore D Hardness (after 10 days)	> 80
Adhesion	> 2.5 N/mm^2
Operating Temperature Range	-20°C to + 80°C

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PRODUCT CHARACTERISTICS ACCORDING TO UNI EN 13813

FEATURES	STANDARD	RESULTS
Wear Resistance (rotating load method)	UNI EN 13892-5	≤ 10cm^3
Impact Resistance	UNI EN ISO 6272	≥ 20 N.m
Adhesion strength	UNI EN 13892-8	≥ 2.0 N/mm^2
Reaction to fire	UNI EN 13501-1	F

Note 1: The particle size may vary depending on the desired surface roughness and coating thickness.

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