ICC Premiscelati

# DIE KOLL C2TE ECO

## PROFESSIONAL QUARTZ CEMENT-BASED ADHESIVE WITH VERY-HIGH MECHANICAL PERFORMANCE AND IMPROVED WORKABILITY, WITH NO VERTICAL SLIP AND EXTENDED OPEN TIME, FOR LAYING OF CERAMIC TILES, TERRACOTTA, PORCELAIN TILES AND STONES



**Description:**

***DIE KOLL C2TE ECO*** is a white or grey powder adhesive ideal for high-performance bonding of any kind of ceramic tiles, for internal and external use, on floors and walls, in domestic, commercial, and industrial environments, including areas subject to freezing. The special additives contained in the adhesive guarantee a long open time (≥ 30 minutes), long setting times (approximately 45 minutes) and excellent workability even in particularly critical conditions. ***DIE KOLL C2TE ECO*** is mixed with water in order to obtain an easy-to-work mortar with high adhesive power and thixotropy; it can be applied vertically without dripping and without letting tiles, heavy ones included, slip. It allows laying from top to bottom, without the use of tile spacers.

***DIE KOLL C2TE ECO*** is ideal for particularly demanding or heavy-duty applications.

**Areas of application:**

Internal and external high-performance bonding of any kind of ceramic tiles and mosaics, both absorbent and non-absorbent (single- and double-fired ceramics, porcelain tiles, klinker, terracotta, stones, etc.) on floors and walls, in domestic, commercial, and industrial environments, even when subject to heavy traffic.

Suitable for laying on traditional walls plastered with conventional plaster or cement-based mortar, on conventional cement screeds or reinforced floating cement screeds provided they are sufficiently cured and dry, on old existing floors (overlapping), on substrates with waterproofing sheathings from the ***ELASTOFLEX*** range, on internal painted walls provided the paint is well anchored, on internal cellular concrete block walls and when installing underfloor heating systems.

Suitable for laying on gypsum substrates after treatment with ***ICC GRIP*** *primer*. ***DIE KOLL C2TE ECO*** perfectly bonds as well expanded or extruded polystyrene heat-insulating panels and mineral fibre panels (mineral wool) or equivalent, on walls or ceilings.

For special laying, please consult our technical department.

**Substrate preparation:**
Substrates must be cured (1 week for each centimetre of thickness and in any case at least 28 days, unless the substrate is made of special quick-setting binders), compact and mechanically strong, with no loose debris and moisture rising, sufficiently even, free from oil, grease, wax, dust, paint and dirt in general or anything else that may hinder adhesion to the substrate. Cement-based substrates must not be subject to shrinkage after the tiles have been laid. Any cracks or fissures must be suitably treated. Any depressions or differences in evenness must be corrected. Slightly dusty and very absorbent surfaces must be treated in advance with the special **ICC GRIP** consolidating *primer*.
Sun-drenched or predominantly dry surfaces must be moistened with clean water half an hour before laying; avoid applying adhesive on standing water.

**Mortar preparation:**
***DIE KOLL C2TE ECO*** is mixed using a mixer or drill-type mixing device with a low-rev agitator with approximately 7.0-7.5 litres of clean water per 25 kg bag, until a creamy, smooth and lump-free mixture is obtained. Leave the mixture to rest for approximately 5 minutes. Remix briefly the mortar and start laying. The product is not suitable for mixing by hand or with a concrete mixer.

**Application:**
***DIE KOLL C2TE ECO*** is applied to the substrate with a toothed spreader of variable size depending on the format, size and characteristics of the back of the material to be laid. Spread a first layer of adhesive on the substrate with the smooth part of the spreader, then work it with the toothed part to obtain the thickness necessary for bonding the tiles. Important: only cover enough surface area with the adhesive in order to allow the tiles to be laid within the specified open time. Under standard environmental conditions the open time of ***DIE KOLL C2TE ECO*** is more than 30 minutes; unfavourable conditions (direct sunlight, dry wind, high temperatures, very absorbent substrates) may drastically reduce open time. Check frequently that the adhesive has not formed an anti-adhesive surface film; if necessary, spread again the product with the toothed spreader. It is not necessary to wet the tiles; however, in case of tiles presenting a dusty surface, wash them by immersing them in clean water and remove surface water before laying. Press down the tiles to allow for uniform and complete contact with the adhesive. When laying large formats, for external laying and when laying floors subject to heavy traffic, the double-spread technique must be used in order to ensure full wettability of the back of the tile.

**Coverage:**
With no. 5/6 spreader: approximately 2.5 - 3 kg/m².
With no. 8/10 spreader: approximately 4 - 5 kg/m².

**TECHNICAL DATA**

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|---|---|
| Consistency | White powder |
| Maximum grain-size | 0.6 mm |
| Density (wet mortar) | 1.6 gr/cm$^3$ approximately |
| Mixing water for each 25 kg bag | 7.0 ÷ 7.5 litres |
| Permitted application temperatures | from +5°C to +35 °C |
| Workability time | approximately 6 hours* |
| Setting time | approximately 45 minutes* |
| Wall joints | after approximately 4÷8 hours* |
| Floor joints | after approximately 24÷36 hours* |
| Foot traffic | after 24 hours* |
| Ready for use | after 14 days* |

**FINAL PERFORMANCE**

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|---|---|
| Initial adhesion (after 28 days) | ≥ 1 N/mm² (EN 1348) |
| Adhesion after heat ageing | ≥ 1 N/mm² (EN 1348) |
| Adhesion after water immersion | ≥ 1 N/mm² (EN 1348) |
| Adhesion after 25 freeze/thaw cycles | ≥ 1 N/mm² (EN 1348) |
| Open time | ≥ 30 minutes* (EN 1346) |
| Tile slip | ≤ 0.5 mm (EN1308) |
| Resistance to ageing | excellent |
| Moisture resistance | excellent |
| Adhesion to polystyrene panel | ≥ 0.1 N/mm$^2$ (Panel breakage) |
| Adhesion to concrete | ≥ 1.5 N/mm$^2$ |

*Data measured at (23±2)°C and (50±5)% relative humidity. Lower temperatures lengthen curing and hardening times.

**Cleaning of equipment:**
Wash hands and equipment with plenty of clean water before the adhesive starts setting; mechanical means should be used afterwards.

**Hygiene and safety:**
EUH 208 Contains cement. May cause an allergic reaction. Portland cement contained in the product can cause skin irritation and serious eye injuries. Do not inhale dust, ventilate areas during mixing and carefully protect yourself with gloves, protective clothing and goggles. Before use, carefully read the instructions on the packaging and consult the Safety Data Sheet.

**Packs:**
***DIE KOLL C2TE ECO*** is available in bags of 25 kg each and delivered on 1500 kg wooden pallets.

**Storage:**
Store the product in its undamaged original packaging in a cool, dry place. Do not disperse dust. Cr VI content less than 2 p.p.m. Properly stored product must be used within 6 months of the packaging date stamped on the bag.

**Warning:**
Do not use on metal surfaces, wood, plastic or surfaces subject to strong movements. Do not use in thicknesses greater than 10 mm; if necessary, level the surfaces beforehand with a product from the ***Industria Calce Casertana Srl*** range and wait for it to cure before laying. Protect work carried out for at least 48 hours from rain, washouts or frost and for at least 5 days from direct sunlight. Gypsum or scagliola-based surfaces must be treated in advance with the special ***ICC GRIP*** *primer.* Do not apply on frozen substrates or in any case at ambient temperatures below + 5°C. It is recommended not to add unrelated products. Do not add water or the product to the mix during the setting phase. Do not use on panels coated with protective films. Only the latest updated version of this technical data sheet, available on the website *www.calcecasertana.it*, is to be considered valid.

**PRODUCT FOR PROFESSIONAL USE ONLY**

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