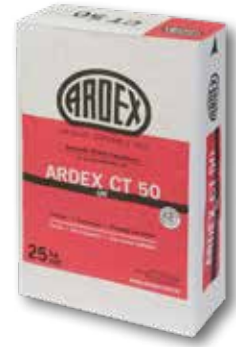




ARDEX CT 50

Ceramic-Porcelain Tile Adhesive

- Slip resistant
- Water resistant
- Frost resistant
- High strength
- Easy and convenient application
- Extended working time
- Wide range of tiles & surfaces



USE

ARDEX CT 50 is a versatile multipurpose tile adhesive, with enhanced properties of adhesion, suitable for fixing ceramic, porcelain, glass mosaics, and most non-moisture sensitive natural stone floor and wall tiles. ARDEX CT 50 is frost and weather resistant, and can be used internally and externally as well as in wet areas and swimming pools.

DESCRIPTION

The TS EN 12004 C2 TE designation for ARDEX CT 50 classifies the adhesive as 'improved cementitious adhesive with reduced slip and extended open time.' The additional characteristics for ARDEX CT 50 determined in accordance with TS EN 12004, are a tensile adhesion strength of greater than 1 N/mm² as an initial adhesion value, greater than 1 N/mm² after water immersion, greater than 1 N/mm² after heat aging, and greater than 1 N/mm² after freeze thaw cycling, making this product suitable for internal and external locations, including swimming pools.

The mixed mortar has a slump free consistency with high initial grab, enabling heavy wall tiles to be fixed, thus reducing the need for battens and spacers. ARDEX CT 50 adheres strongly to most construction materials such as concrete, cement and sand renders and screeds, heated sub-floors, brickwork and blockwork, gypsum plaster, anhydrite screeds, plasterboard and existing ceramic tiled surfaces.

ARDEX CT 50 can also be used for bonding rigid foam insulating materials, e.g. polystyrene, polyurethane, etc.

ARDEX CT 50 can be used to fix tiles to concrete or cement/sand screeds with underfloor heating.



ARDEX Yapı Malzemeleri Ltd. Şti.

İstanbul Deri Organize Sanayi Bölgesi
Desen Sok. No:14/A C1 Özel Parsel
P.K. 34956 Tuzla / İstanbul / Turkey

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40027 EN 12004:2007+A1

ARDEX CT 50

Cementitious Tile Adhesive
EN 12004:C2 TE

Initial tensile adhesion strength	: ≥ 1,0 N/mm ²
Tensile adhesion strength after water immersion	: ≥ 1,0 N/mm ²
Tensile adhesion strength after heat aging	: ≥ 1,0 N/mm ²
Tensile adhesion strength after freeze-thaw cycles	: ≥ 1,0 N/mm ²
Open time (after not less than 30 minutes)	: ≥ 0,5 N/mm ²
Early tensile adhesion strength (After not less than 6 hours)	: NPD
Slip	: ≤ 0.5 mm
Traverse deformation	: NPD
Fire Class	: E



ARDEX CT 50

Ceramic-Porcelain Tile Adhesive

SURFACE PREPARATION

The backgrounds and surfaces to receive tiles must be clean, firm, free of dust, dirt, oil, grease and other barriers to adhesion, as well as being strong enough to support the weight of the tiles being fixed. Ensure that the background has adequate drying time and is correctly primed, where required, prior to fixing the tiles.

Backgrounds to receive ceramic tiles should be finished so any gap under a 2m straight edge does not exceed 3mm. ARDEX CT 50 can be applied to dry or moist surfaces, but moisture sensitive materials must remain dry after tiling.

ARDEX Waterproofing Systems can be used prior to tiling to create a waterproof protective coating that guarantees the prevention of water damage to floors and walls, by protecting moisture sensitive backgrounds in wet locations.

ARDEX CT 50 must be used with the addition of ARDEX E 75 Mortar Admix if the tiles has an epoxy reinforcement.

MIXING

Add the ARDEX CT 50 powder to water in a clean container, whilst stirring and mixing thoroughly to give a slump-free, easily worked mortar. The use of an ARDEX mixing paddle with a 10mm chuck, variable speed electric drill, makes light work of mixing.

The mixing proportions by volume are:- Approximately 3 parts ARDEX CT 50 powder: 1 part water. A 25kg bag of ARDEX CT 50 requires approximately 7,25 litres of water.

The consistency of the adhesive can be adjusted to suit site conditions and the materials being fixed, but must always be slump-free. The pot life of the mixed mortar is approximately 3 hours at normal temperatures (20°C). The mortar should be applied at temperatures above 5°C.

APPLICATION

The mixed adhesive is applied to the prepared surface with a trowel, and then combed through with a suitably sized notched trowel in straight ribs to give a ribbed mortar bed. The tiles should be fixed within the open time of the applied adhesive, and pressed into place with a twisting and sliding action to achieve the required contact. For tiling to walls in dry internal locations, the adhesive contact should be with at least 50% of the back of the tile. For maximum performance, at least 80% adhesive contact to the back of the tile should be achieved.

When tiling to all floors, and in wet areas, such as showers and swimming pools, or in external locations, achieving a solid bed usually requires the backs of the tiles to be buttered immediately prior to placing into the ribbed bed, so no voids are left beneath the tiles.

The size of the notched trowel chosen depends on the tile size, the surface being tiled, the profile on the back of the tile and the degree of coverage required.

ARDEX CT 50 is classified as having an extended open time of not less than 30 minutes when measured in accordance with TS EN 12004.

For optimum performance under typical site conditions, tiles should be fixed within 20 minutes, and can be adjusted for up to 10 minutes at 20°C. For areas that need rendering, the use of ARDEX AM 100 rapid hardening render, which will allow tiling to commence after only 2 hours at 20°C, should be considered.

GROUTING

Grouting can proceed once the tile bed has hardened sufficiently so that the tiles will not be dislodged. When grouting wall tiles, ARDEX CT 50 is normally hard enough after 8 hours at 20°C, depending on the porosity of the tile and the background.

When grouting floor tiles ARDEX CT 50 is normally hard enough after 24 hours at 20°C to accept foot traffic depending on the porosity of the tile and the background. Higher temperatures will shorten and lower temperatures will lengthen these times.

The tile joints should be grouted with appropriate ARDEX cement or epoxy based grouts.

PRIMERS

ARDEX P 51

Concentrated Water-Based Primer and Bonding Agent for use on absorbent backgrounds, plaster and anhydrite screeds prior to the use of ARDEX CT 50.

ARDEX P 4

Ready Mixed, Multipurpose, Rapid Drying Primer for use on ceramic and porcelain tiles, concrete and terrazzo. ARDEX P 4 Primer is solvent free, and dries after 60 minutes. It is suitable for use in dry, damp or wet (not submerged) internal and external locations

ARDEX P 82

Non-Flammable, Water-Based Synthetic Primer for use on smooth impervious surfaces including existing ceramic tiling, internal asphalt, terrazzo, timber walls, sound and well adhered paint coatings and old adhesive residues, prior to the use of ARDEX CT 50.

GUIDANCE NOTES ON BACKGROUNDS TO BE TILED

Concrete

Allow at least 6 weeks, preferably at least 12 weeks drying time prior to fixing tiles onto new concrete. Mechanically clean concrete and ensure mould oil and curing agents are removed.

Cement/sand render and screed

Wood float finish and prevent rapid drying of the surface for 3 days (renders) or 7 days (screeds). Allow render to air dry in good conditions for at least 2 weeks prior to tiling or at least 3 weeks for screeds prior to tiling.

Note for Screeds:

With an ARDEX A 38 cement/sand screed, tiles can be fixed after only 4 hours.

Note for Renders:

With ARDEX AM 100 Rapid Hardening One Coat Tile Render tiles can be fixed only 2 hours after application.

Gypsum Plaster

Do not use in wet or damp conditions. Gypsum plaster must be dry and at least 4 weeks old prior to tiling. Wire brush plaster to remove dust. Use ARDEX P 51 primer. Tiling weight should not exceed 20 kg/m²

Plasterboard

Ensure boards are rigidly braced and adequately supported. Fix directly to the paper facing. Do not skim with plaster. Tiling weight should not exceed 32 kg/m².

Wood-based sheets and boards

Prior to tiling, ensure that new or existing boards are dry i.e. conditioned to the environment in which they will be used, and are rigidly fixed, ventilated and free from barriers to adhesion.

ARDEX CT 50

Ceramic-Porcelain Tile Adhesive

For timber floors ARDEX recommend the use of ARDEX S 28 tile adhesive and ARDEX P 51 Primer.

When using ARDEX CT 50 on plywood walls, the plywood needs to be primed with ARDEX P 82 Primer.

NOTE: Wood based sheets and boards should be avoided if at all possible as a background for tiling. If such boards, e.g. plywood board, chipboard, etc. have to be used, they should be restricted to small areas and installed in such a way that they provide a dimensionally stable and rigid background. The backs and edges of such boards should be treated against the ingress of atmospheric moisture that would result in movement and warping.

Tiles should not bridge joints between boards. Since plywood and other wood based boards are not dimensionally stable, they should not be used in wet or damp conditions where they will be subjected to changes in atmospheric humidity. Ceramic tiles should not be used on timber based boards in wet areas or external locations

Painted Surfaces

A trial area should be carried out by priming the sound paint coating with ARDEX P 82 primer prior to fixing the tiles in ARDEX CT 50.

Calcium Sulfate-based screeds i.e. Anhydrite

Ensure they have been laid and prepared in accordance with the manufacturer's recommendations. Generally they require sanding and must have a moisture content of 0.5% or less measured using the carbide method. Prime with ARDEX P 51, diluted with 3 parts of water, or dependent of the information from the gypsum screed manufacturer, a suitably sand blinded coat of an epoxy based primer such as ARDEX R 3 E may be required

Existing glazed ceramic tiling

Ensure existing tiling is well adhered and can support the new tile bed. Thorough cleaning and rinsing off is essential.

Prime tiles with ARDEX P 82 (Internal dry areas only), or ARDEX P 4 (external locations).

Asphalt sanded

With well adhered sand key no primer is required. Internal areas only. If sand key is poor or worn off, proceed as for smooth asphalt.

Asphalt smooth

Priming with ARDEX P 82 recommended. Internal dry areas

Underfloor heating

ARDEX CT 50 is suitable for fixing ceramic tiles to concrete or cement and sand screeds with fully commissioned underfloor heating.

NOTE: For the latest technical or health and safety data on this product, consult the current technical or health and safety data sheet online at www.ardex.com.tr

Technical Data According To ARDEX Quality Standards

Mixing ratio:	7,25 liters of water per 25kg bag
Bulk density:	Approx. 1,5 kg/l
Weight of fresh mortar	Approx. 1,7 kg/l
Material Requirement	Depending on the substrate and the trowel size; (approx.)
	Trowel Size Consumption
	3x3x3mm 2,2 kg/m ²
	6x6x6mm 2,7 kg/m ²
	8x8x8mm 3,2 kg/m ²
Working time / Pot life*:	Approx. 3 hours
Open time*:	Approx. 30 minutes
Fixing time*:	Approx. 15-20 minutes
Walkability / Grouting*:	Gets walkable and groutable after approx. 24 hours.
Grouting on walls*:	Approx. 8 hours
*All data is approximately based on laboratory test made at a temperature of +20°C and relative humidity of %65. Environmental conditions may change these values. Higher temperatures and lower relative humidity decrease these duration whereas lower temperature and higher relative humidity increases them.	
Suitable for underfloor heating:	Yes
EMICODE:	EC 1 Plus - Very low emission
GHS/CLP classification:	GHS 05, Corrosive
GGVSEV/ADR classification:	None
Packaging:	25 kg paper bag
Storage and Shelf Life:	ARDEX CT 50 must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of this product is 12 months from the date shown on the packaging

Recommended mixing paddle:





YAPIDAKİ GÖRÜNMEZ GÜÇ

ARDEX Yapı Malzemeleri Limited Şirketi
İstanbul Deri Organize Sanayi Bölgesi Desen Sk.
No:14/A C1 Özel Parsel Tuzla/İstanbul/Turkey
Tel.:+90 (216) 394 0114 Fax:+90 (216) 394 0377
info@ardex.com.tr - www.ardex.com.tr

ARDEX Turkey is a subsidiary of the International ARDEX Group.