

TECHNICAL SHEET 13.01.01-eng

CONSTRUCTION ADHESIVES



AKRINOL

Adhesive for ceramics and porous concrete; EN 12004: C1T

1. Description, Application

AKRINOL is a **multipurpose construction adhesive** based on cement and **intended to be used in the interior and the exterior**. It is suitable for **laying ceramic tiles, clinker and glass and other mosaics onto the unproblematic wall (fine lime, lime-cement and cement renders) and floor surfaces (concrete, cement plasters/renders) and also for installing floor ceramics in buildings with floor heating**. It performs perfectly at **fixing of boards made of porous concrete (autoclaved aerated concrete (AAC))** when building light foundation walls and partitions.

2. Packaging

Paper bags containing 5 and 20 kilos

3. Technical Data

Density (ready-to-use mortar compound) (kg/dm ³)	~1.61	
Processing times of the adhesive compound and other functional times T = +20 °C, relative air humidity = 65 %	Open time (ready-to-use adhesive compound) (hours)	3 – 4
	Open time of the applied adhesive (minutes)	20 – 25
	The possibility of changing the position of the laid tile (minutes)	max. 10
	Foot traffic of the laid floor tile covering (hours)	after ~12
	The possibility of grouting (hours)	After ~4 – 8 (walls) after ~24 (floor)
Tensile adhesion strength 20 minutes after application EN 1346 (MPa)	>0.5	
Slip of the laid tile EN 1308 (mm)	>0.3	
Initial tensile adhesion strength EN 1348 (MPa)	>0.7	
Tensile adhesion strength after water immersion EN 1348 (MPa)	>1.1	
Tensile adhesion strength after heat ageing at +70 °C EN 1348 (MPa)	>0.6	
Tensile adhesion strength after freezing and thawing EN 1348 (MPa)	>1.1	
Temperature resistance (°C)	-40 to +70	



Main ingredients: cement, polymeric binder, silicate fillers, cellulose thickening agent

Classification under EN 12004: **C 1 T**

4. Surface Preparation

a) Laying ceramic tiles, clinker and glass and other mosaics

Surfaces include solid, dry and clean fine lime, lime-cement or cement render finishes as well as dry, adequately rough and clean concrete surfaces and surfaces of cement screed, without any badly-adhered particles, dust, remains of oils, grease and other filth. Prior to fixing the coatings, dry the newly applied render finishes at least 7 to 10 days for each centimetre of their thickness (the data refer to normal conditions: T = +20 °C, rel. humidity = 65 %) and remove all paint coats, decorative slurries, oil coatings, varnishes and enamels from the old ones. Concrete surfaces and cement screeds should be at least a month old. Prior to the application of the adhesive, moisten very dry surfaces and cover or impregnate very absorbent or extremely unevenly absorbent surfaces with diluted AKRIL EMULSION (AKRIL EMULSION : water = 1 : 1; consumption: 90 - 100 g/m²).

b) Fixing AAC blocks

Joint surfaces should be solid and clean, without any badly-adhered particles, dust, remains of oils, grease and other dirt. Just moisten the boards well prior to fixing.

5. Preparation and Application of Adhesive

Prepare the adhesive by blending the content of a bag – of 20 or 5 kilos of dry compound - into ~5 or ~1.25 litres of water to obtain homogenous compound without any lumps. Wait for 10 minutes for it to swell up then stir again well, and, if necessary, add a little water. The prepared adhesive compound must be applied within approximately 3 to 4 hours.

a) Laying ceramic tiles, clinker and glass and other mosaics

Apply the adhesive with a notched steel trowel or a notched steel masonry smoothing trowel. When fixing tiles of medium size – with sides between ~10 and ~20 cm – the width and dept of notches on the trowel or the smoothing trowel should be 4 to 6 mm, for fixing smaller tiles and mosaics use tools with finer notching and for tiles with sides larger than ~20 cm tools with rougher notching. When determining surface area onto which the adhesive is spread, please consider that the open time of the adhesive to be applied onto a wall or on the floor in normal conditions is only approximately 20 to 25 minutes. Lay the tiles close together or insert appropriately thick plastic distancing pieces into joints. Soak very absorbent tiles in water prior to fixing. Tile position can be changed maximum 10 minutes after installation.

Perform the works only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +35°C and the relative air humidity should be below 80 %. Protect outer surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog or strong wind (≥30 km/h) despite such protection.

Subsequently, fill joints between tiles with a tile joint filler in a selected colour shade and dilatation joints with a suitable permanently elastic mastic.

Indicative or average use (depending on the tile size or of the notching of the application tool):
AKRINOL ~ 2 to 3 kg/m²

b) Fixing AAC blocks

Apply the adhesive onto joint surfaces with a notched trowel (width and depth of notches 4 mm x 4 mm) so that the thickness after “pressing” does not exceed 2 mm. When building, follow masonry rules related to brick connections

The works are conducted only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5°C and +35°C and the relative air humidity should be below 80 %.

Approximate or average consumption:
AKRINOL up to ~3 kg of dry compound for m² of fixed surfaces

6. Tool Cleaning, Waste Management

Thoroughly clean the tools with water immediately after use. Dried stains can not be removed.

Keep the unused dry compound for potential later use. Useless remains should be mixed with water and when hardened deposited onto the dumping grounds of construction waste (waste classification number: 17 09 04).



Cleaned packaging can be recycled.



7. Safety at Work

Apart from general instructions and regulations for construction and ceramic works, please consider that the product contains cement and is therefore classified among dangerous preparations labelled as DANGER. The content of chromium (Cr 6⁺) is below 2 ppm.

Protection of the respiratory system: the use of a safety mask in case a lot of dust is raised. Protection of hands and body: work clothing, preventive protection with a protection cream and the use of protective gloves are recommended in the case of prolonged exposure of hands.

FIRST AID:

Intake in respiratory system: sufficient supply of fresh air and seek medical advice because of safety reasons. Contact with skin: wash off with water and soap and rinse all off. Contact with eyes: immediately widen the eyelids, rinse thoroughly with clean water (10 to 15 minutes), seek medical advice if necessary. Ingestion: in case of longer lasting issues seek medical advice immediately.

Warning signs on the packaging	  <p style="text-align: center;">GHS05 GHS07 DANGER</p> <p style="text-align: center;">THE PRODUCT CONTAINS CEMENT, PORTLAND</p>
Special measures, warnings and observations required for safe work	<p>Hazard statements H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.</p> <p>Precautionary statements P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P405 Store locked up. P501 Dispose of contents/paper bags in accordance with local/regional/national/international regulation – see above 6. Tool Cleaning, Waste Management</p>

8. Storage, Transportation Conditions and Durability

During transportation, protect the product against moistening. Store in dry and airy places, out of the reach of children!

Shelf life when stored in an originally sealed and undamaged packaging: at least 12 months for 5 kg and at least 6 months for 20 kg packaging.

9. Quality Control

The product's quality characteristics are determined by the internal manufacturing specifications as well as by the Slovenian, European and other standards. JUB ensures achieving of the declared or set quality level by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years and which



comprises daily quality checks in its own laboratories, and occasionally at the Construction Institute in Ljubljana and at other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovenian and European standards for protection of the environment and for ensuring security and health at work, which is confirmed by the ISO 14001 and OHSAS 18001 certificates.

CE	
JUB d.o.o. Dol pri Ljubljani 28 1262 Dol pri Ljubljani SLOVENIJA 08	
EN 12004 Conventional cement adhesive for interior and exterior use with reduced slip (C 1T)	
Initial tensile adhesion strength	≥ 0.5 MPa
Tensile adhesion strength after heat ageing at +70 °C	≥ 0.5 MPa
Tensile adhesion strength after water immersion	≥ 1.0 MPa
Tensile adhesion strength after freezing and thawing	≥ 1.0 MPa

10. Other Information

The technical instructions in this brochure are given based on JUB's experience and are given as a guideline for achieving optimum results. JUB cannot accept any responsibility for the damage caused by incorrect selection of a product, incorrect use or unprofessional work.

This technical sheet supplements and replaces all preceding editions. JUB reserves the right to change and supplement data in the future.

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The product is made by a company certified:
ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007

