

C05 PU ADHESIVE



HIGHLY FLEXIBLE, 2K ADHESIVE FOR DIVERSE SURFACES LIKE METAL, PLYWOOD & DRYWALLS

Description :

Eco-friendly, Two Component, High Performance Polyurethane adhesive for ceramic tiles, Stone & Glass mosaic material. Elastic organic mineral adhesive for high-performance & high adhesion laying with no vertical slip on deformable substrates.

Scope of Use :

- High-elasticity laying of ceramic tiles, porcelain tiles, marble & natural stone on floors & walls, on absorbent & non-absorbent, deformable substrates.
- Porcelain tiles, low thickness slabs, ceramic tiles, klinker, cotta, glass & ceramic mosaic, natural stone, marble, granite & recomposed materials also subjected to staining or deformation due to water absorption & thermal expansion.
- Substrates :
 - Cement based screeds
 - Cement plasters & cement-lime mortar
 - Wood, metals, PVC and FRP.
 - Floors and walls in polyurethane resin, glazed tiles, cement-based and resin floor tiles, porcelain tiles. Internal & external flooring and walls, in domestic, commercial & industrial applications, for street furniture, underfloor heating systems, work surfaces in industrial settings or in laboratories, swimming pools, thermal water baths & fountains, also in areas subject to freezing. Fixing to sheet metal used for prefabricated bathrooms, on worktops & kitchens, balconies, terraces, flat roofs & domes.

Compliance / Standard :

- R2T as per EN 12004/ISO 13007 standard
- Type 5 TS2 as per IS 15477-2019 standard.

Where to Use :

- Tile application system composed of a layer of PU Adhesive, organic mineral adhesive, having maximum thickness of 2-3 mm and applied by means of toothed edge spatula (square shape having high of 4-6 mm). Tile minimum dimension 15x15x0.5 (cm). the space between the tiles having width of 2 mm, are filled by means of a grout layer having thickness of 4 mm.
- Do not use :
In contact with polystyrene or on substrates which are not fully cured & subjected to moisture rising.

Application Instruction :

Preparation of substrate :

- Substrates must be compact & consistent, free from dust, oil & grease, free from any rising damp, with no loose, flaky or imperfectly anchored parts.
- The substrate must be stable, without cracks & have already completed the curing period of hygrometric shrinkage. Uneven areas must be corrected with suitable smoothing & finishing products.

Mixing Process :

- C05 PU Adhesive is prepared by mixing together parts A & B from the bottom upwards, using a low-rev ($\approx 300-400/\text{min.}$) helicoidal agitator, respecting the present ratio of 3.2 : 0.8 of the packs. Pour part B into the bucket containing part A, being careful to mix the two parts uniformly until a smooth, even coloured mixture is obtained. The user must mix a quantity of adhesive which can be consumed within 1 hour at 23°C / 50% R.H. Packs of C05 PU Adhesive must be stored at a temperature of near to 20°C for at least 2/3 days prior to use.

Application :

- C05 PU Adhesive must be applied with a suitable, toothed spreader of the type & dimensions most appropriate for the format and type of tiles used. Using the smooth part of the spreader, apply a fine layer of product, pressing down onto the substrate in order to ensure maximum adhesion. Press down each tile to allow for maximum coverage of the surface. In environments subjected to heavy traffic, in external applications and wherever high-elasticity laying system is required, use the double-spread technique to ensure 100% application of the product to the rear of the tiles.

Cleaning :

- C05 PU Adhesive Residues of can be cleaned from tools & covered surfaces with water & alcohol while the adhesive is still fresh. Once cured, the adhesive can only be removed by mechanical means.

Technical Properties :

(As Per IS 15477-2019 standard.)

Appearance	Part A white paste / Part B light beige paste
Specific Gravity	Part A $1.60 \pm 0.02 \text{ kg/cm}^3$ / Part B $\approx 1.35 \pm 0.02 \text{ kg/cm}^3$
Warning	Avoid direct exposure to sunlight and sources of heat
Mixing Ratio	Part A : Part B = 04 : 01
Specific weight of the mixture	$1.47 \pm 0.02 \text{ kg/cm}^3$
Application temperature	from +10 °C to +30 °C
Pot Life	45 to 50 minutes at 30°C
Adjustability	90 minutes at 30°C
Grouting	$\approx 12 \text{ hrs}$ on walls / $\approx 24 \text{ hrs}$ on floors
Vertical Slip	$\leq 0.5 \text{ mm}$
Coverage	2 – 4 kg/m^2

Final Performance :

Shear adhesion after 7 days	≥ 6 N/mm ² EN	EN 12003
Durability test :		
Shear adhesion after water immersion	≥ 3.5 N/mm ²	EN 12003
Shear adhesion after thermal shock	≥ 3.5 N/mm ²	EN 12003
Adhesion to concrete after 7 days	≥ 3.0 N/mm ²	EN 1348
Resistance to ageing	High	
Resistance to solvents and oils :	Good	
Resistance to acids and alkalis :	Good	
Resistance to temperature :	From -10°C to +100°C	
Ultimate elongation after 7 days	≈ 35%	
Conformity	R2	EN 12004

Precautions :

- C05 PU Adhesive are irritant for eyes & skin, both components A and B may cause sensitisation if they come into contact with the skin of those predisposed.
- C05 PU Adhesive component B are corrosive, may cause serious burns & are harmful if swallowed.
- C05 PU Adhesive component B is also harmful if it comes into contact with the skin. The product contains low molecular weight epoxy resins that may cause sensitisation if cross contamination occurs with other epoxy compounds. During use wear protective gloves & goggles & take the usual precautions for handling of chemicals. If the product comes in contact with the eyes or skin wash immediately with plenty of water & seek medical attention.

Coverage :

As a guide:

1.2 kg/m²/mm of thickness

(Consumption may vary depending on the evenness on the substrate, trowel notch size, type of tile and application technique)

Packing :

C05 PU Adhesive is available in 1 kg & 4 kg Pack.

Shelf life & Storage :

Until 12 months since the date of production when stored in damaged dry conditions & original packaging.

Health & Safety :

C05 PU Adhesive is not hazardous. It should not be swallowed or allowed to come into contact with the skin eyes. Protective gloves, Nose mask and goggles should be worn. Contact with the skin for long tenure should be avoided. In case of contact with the eyes, it should be rinsed immediately with plenty of water and medical advice sought immediately.

Fire :

C05 PU Adhesive is non-flammable.

Technical Support :

The company provides a technical service supported by the team of specialist applicators in the industry.