



Very
High
Durability
Repair &
Prevention
System



Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

Structural adhesives and sealants

Tecnoepo R/Z

GREY

ADHESIVE WITH HIGH GLASS TRANSITION TEMPERATURE FOR STRUCTURAL BONDING
For bonding reinforcement plates
For adhering concrete or mortars

CE approved – Certificate n. 1305 - CPD - 0808
EN 1504-4 table ZA.1a and ZA.1b

ADHESIVE FOR FILLING AND FIXING

Description

Two-component epoxy-amine based thixotropic adhesive putty, charged with inert silica fillers, but solvent free, hardening at ambient temperature.

Characteristics

High thixotropy
High reactivity
High mechanical strength
Glass transition medium - high

Use

For grouting of cracks, cavities, or discontinuities in general on concrete surfaces, in the preparation during interventions of protection and waterproofing.
In the installation of injection nipples, in sealing interventions.
Bonding of concrete, iron, stone, brick, wood, etc..
Bonding in the restoration and repair of structural elements with reinforcement techniques using steel plates (beton plaqu  method).

Application

Tools: trowel or dented trowel
Temperature of application: 10 ÷ 35°C and relative humidity max 60 %
Thickness : not over 10 mm
Cleaning tools : MEK or acetone or diluents for epoxy

METHOD OF USE

PREPARATION OF THE SUBSTRATE

Prior to proceeding with the application of the adhesive, it is necessary to verify the condition of the cementitious substrate: verifying in clean and absent of oil traces, greases, delaminating particles, free from cracks and discontinuities. Continue with the preparation of the substrate choosing the best suited procedure accordingly:

- Elimination with proper equipment of the superficial dust when the substrate seems in good condition. Recommended are vacuum aspiration and/or watching with pressured water.
- Sandblast or grinding in case of un-cohesive parts.

Avoid the application on substrates impregnated with oils and grease.



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APPLICATION

Make sure the room is well ventilated and follow the recommendations stated in the Material Safety Data Sheet on the use of PPE (Personal Protective Equipment).

Take from the component A and the component B an equal amount in weight and mix with the aid of a spatula until complete homogenization of the mixture.

Spread the product evenly by trowel or, for large areas, with a notched trowel.

IMPORTANT: if the ambient temperature and that of the support is lower than 15° C, it is necessary to heat separately the two components of the product at a maximum temperature of 30° C (for example in bain-marie) so as to maintain a low viscosity and better applicability.

Do not apply at temperature below 10° C.

APPLICATION CONDITIONS

Temperature substrate +10° C / +35° C

Humidity substrate ≤ 3%

Ambient Temperature +10° C / +35° C

Relative ambient humidity max 60%

Dew Point The substrate and the product shall be at a temperature minimum 3° C higher than the dew point to avoid the risk of condensation.

PACKAGING

supply - kg

component	a	b	a+b
pail	2	1	3

STORAGE

Store the original and unopened packaging at a temperature between + 5° C and + 35° C. Product can be kept 12 months from the production date.

TECHNICAL CHARACTERISTICS

APPLICATIVE CHARACTERISTICS at 20 ± 2° C	Test method	Unit of measurement	Typical values
Mixing ratio in weight	-	A : B	2 : 1
Solid content in weight on total	-	%	~ 100
Consumption	-	Kg/m ² /mm	~ 1,65
Specific weight	EN ISO 2811-1	kg/l	~ 1,65
Pot life	EN ISO 9514	Minutes	40 ± 5
Workability time of mixture	EN ISO 9514	Minutes	~ 35



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PERFORMANCE CHARACTERISTICS	Test method	Unit of measurement	Typical values	THRESHOLD VALUES according EN 1504-5
Open time	EN 12189	minutes	~ 60	-
Coefficient of thermal expansion	EN 1770	per °C	~ 28×10^{-6}	$\leq 100 \times 10^{-6}$
Total shrinkage	EN 12617-1	%	0,08	$\leq 0,1$
Glass transition temperature (48 h at 23°C)	EN 12614	°C	46,9	≥ 40
Glass Transition temperature (24 h at 23°C + 24 h at 60°C)	EN 12614	°C	75,7	-
Inclined shear strength in compression (steel)	EN 12188	N/mm ² at 50°	> 70	≥ 50
		N/mm ² at 60°	> 70	≥ 60
		N/mm ² at 70°	> 80	≥ 70
Adhesion by direct tensile (steel)	EN 1542	N/mm ²	> 18	≥ 14
Tensile strength (concrete/concrete)	EN 12615	N/mm ²	> 7	≥ 6
Adhesion concrete/concrete	EN 12636	-	Failure concrete	Failure concrete
Flexural strength	EN 12190	N/mm ²	> 30	-
Compression strength	EN 12190	N/mm ²	> 90	≥ 30
Modulus of elasticity in compression	EN 13412	N/mm ²	~ 9000	≥ 2000
Durability	EN 13733	-	Pass	Pass/Non pass

The above data are based on our actual and most experienced practical and laboratory knowledge and the results are collected from application of the product in different situations. Tecnochem Italiana does not assume any responsibility regarding inadequate or negative performance as a result of improper use of the product or for defects deriving from factors or elements other than the quality of the product including improper storage. The technical characteristics and performance mentioned in this datasheet are updated periodically. The revision dates and number of revision of the datasheets are listed in the table below. Eventual variations are traceable on our website www.tecnochem.it where the most updated datasheets can be retrieved.