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Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

Structural adhesives

Tecnoepo 400 TIXO

ADHESIVE FOR STRUCTURAL BONDING



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

**Product for the structural bonding of reinforced concrete
with adhering mortar, with concrete, for plate fitting**

Description

Epoxy-poly-amide based two-component thixotropic adhesive, charged with fillers and pigments, for structural reinforcement interventions.

Characteristics

Medium reactivity
Optimal wetting of the substrate and application properties on cement based substrates, stone, tiles, and ferrous materials.
Excellent adhesion on substrates with reduced humidity (maximum 4%)
Very high mechanical resistance
Medium-high glass transition temperature
Good stability in time of the physical-chemical properties.

Use

As adhesive for:
- Gluing of the elastic fabric FLEX Tape HY for the sealing of cracks of joints, subjected to strong movements or dilatations, in presence of water in negative pressure.
- Assembling of concrete elements
- Assembling prefab elements (segments)
- Grouting of bolts and studs
- Reinforcement with steel bars or plates.

Application

Tools: by rake, blade or dented trowel
Temperature of application: 10 ÷ 35 °C and relative humidity of max 80 %.
Clean tools with: 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 if 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 cleaning with water pressure;
- Sandblasting or grinding in case of un-cohesive parts.

Avoid the application on substrates contaminated with oil and/or greases.



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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). Proceed with the application of **Tecnoepo 400 TIXO** as follows:

Pour component B into component A and mix for 2-3 minutes, or until complete homogenization of the mixture with a suitable drill mounted mixer at low speed.

TO SEAL CRACKS OR JOINTS WITH FLEX Tape HY: Apply a strip of masking tape on either side of the joint to be sealed. The strap should be applied to 2 cm away from the sides of the FLEX Tape HY. Then apply the adhesive TECNOEPO 400 TIXO to the sides of the joint to a thickness of 1-2 mm depending on the flatness of the support.

Apply the FLEX tape/HY within 30 minutes on the layer of adhesive. Pressing the TAPE until the adhesive escapes from the mounting perforations.

Apply a second adhesive layer of 1-2 mm above the TAPE with an overlap of at least 2 cm on both sides (for more details see Technical Data Sheet of FLEX Tape HY).

FOR STRUCTURAL BONDING: Apply the product by trowel or brush (for small areas) on the substrate as well on the reinforcement plate, at a ratio of 1 to 1.5 kg/m². Shore up the plates until the hardening of the adhesive layer (at least 24 hours at 20°C). Consider that the product reaches 80% of its mechanical performance over 3 days.

FOR GROUTING: pour the product directly into the hole for at least 1/3 of the depth, than insert the element to be anchored, previously coated with or doped in the adhesive.

IMPORTANT: Do not apply at temperatures below 10°C.

APPLICATIVE CONDITIONS

Substrate temperature	: +10°C / +35°C
Substrate humidity	: ≤ 4%
Ambient temperature	: +10°C / +35°C
Relative ambient humidity	: max 80%
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	7	3	10



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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	70 : 30	
Solid content in weight	-	%	~ 100	
Consumption	-	Kg/m ² /mm	~ 1,6	
Density	EN ISO 2811-1	kg/l	~ 1,55	
Pot life	EN ISO 9514	Minutes	150 ± 30	
Workability time of the mixture	EN ISO 9514	Minutes	+ 90	
Open time	EN 12189	Minutes	180	
PERFORMANCE CHARACTERISTICS	Test method	Unit of measurement	Typical values	LIMIT VALUES according EN 1504-4
Thermal expansion coefficient	EN 1770	per °C	31,66 x 10 ⁻⁶	≤ 100 x 10 ⁻⁶
Total shrinkage	EN 12617-1	%	0,02	≤ 0,1
TG – glass transition temperature	EN 12614	°C	46	≥ 40
Shear strength	EN 12615	N/mm ²	> 6,8	≥ 6
Shear strength, inclined, in compression	EN 12188	N/mm ² at 50°	> 65	≥ 50
		N/mm ² at 60°	>65	≥ 60
		N/mm ² at 70°	> 85	≥ 70
Adhesion by direct pull-off		N/mm ²	> 22	≥ 14
Adhesion concrete on concrete	EN 12636	-	Concrete failure	Concrete failure
Flexural strength	EN 12190	N/mm ²	> 35	-
Compression strength	EN 12190	N/mm ²	> 60	≥ 30
Elasticity modulus in compression	EN 13412	N/mm ²	5000	≥ 2000
Durability	EN 13733	-	Passes	Passes/Not passes

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.