

## TECHNICAL DATA SHEET

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Mixture suitable to the filling up of very large cracks in structural systems.

## PARTICULAR FEATURES

Thixotropic pre-mix suitable to carry out the filling up of cracks also deep in masonries and particularly in vaults also frescoed. Cracks width between 15 and 40 mm.

## COMPOSITION OF FORMULATION

It is made up of special hydraulic binders (C30), chemically stable and with very low soluble salt contents, pozzolana, calcareous and siliceous inerts and a special combination of fluidifying, retentive and airing additives. The special formulation, produced in 1/10,000 planetary dispersion for a time not under 20 minutes, forms a homogenous pre-mix of white colour.

## APPLICATION FIELDS

The product, is used to execute interventions of quick and efficient structural consolidation of cracked manufactures.

Fast initial setting and controlled expansive power

## PREPARATION'S INSTRUCTIONS

LEDAN TA3/N is a pre-mix ready for use with the only adding of water.

Fast initial setting, prepare just the amount injectable in 15 minutes.

Knead energetically, for about two minutes, LEDAN TA3 with clean water;

## RECOMENDED DOSES

USE	LEDAN TA3	WATER
FILLING OF CRACKS	10 Kg	8 lt
FILLING OF BIG VOIDS	10 Kg	6 lt

## INSTRUCTIONS FOR USE

- 1) Firstly drill the holes and remove well friable and incoherent parts.
- 2) If possible wet the surfaces
- 3) Add water to LEDAN TA3, mixing energetically with electrical equipment.
- 4) Inject within 10 minutes.
- 6) Inject "uninterruptedly" to avoid occlusions, by air pistols or by special machine having exit nozzles with diameter not less than 10 mm.

## LIMITS FOR THE USE

LEDAN TA3 is lime based mixture, therefore avoid application in periods of extreme cold (with minimum temperatures less than 5° C) or extreme heat (with maximum temperatures over 35°C)

LEDAN TA3/N is applicable by air pistols and equipment at cochlea with continuous alimentation, such as to allow the total filling up of the crack without interruptions.

PHYSICAL - CHEMICAL FEATURES					
SPECIFIC WEIGHT	1,4 Kg/Dm <sup>3</sup>	MEDIUM	ADHERENCE	1,9 N/mm <sup>2</sup>	GOOD
INITIAL SETTING	1 HOURS	MEDIUM	EXUDATION	NONE	EXCELLENT
FINAL SETTING	2,5 HOURS	MEDIUM	STEAM PERMEABILITY	8 μ	GOOD
WORKABILITY	20 minutes	MEDIUM	ELASTIC MODULE	20 000 N/mm <sup>2</sup>	MEDIUM
RESISTENCE TO COMPRESSION	27 N/mm <sup>2</sup>	GOOD	WATER RETENTION	>7%	EXCELLENT
RESISTENCE TO BENDING	8 N/mm <sup>2</sup> (28 gg)	MEDIUM	SHRINKAGE	1,90 μm	EXCELLENT

N.B. The material was characterized bearing in mind its own application modalities. The numerical values refer to averages revealed on laboratory supports reproducing problems inherent in building structures.

#### EFFLORESCENCE

To evaluate if possible soluble salts present in a mortar may cause undesired chemical and chromatic alteration phenomena, it is possible to carry out a test according to the RAL 544/3 regulations in the laboratory. The formulation LEDAN TA3/N undergoing such a test does not cause efflorescence phenomena.

#### DURABILITY

Some LEDAN TA3/N samples undergoing an accelerated aging cycle, simulating a natural ageing of around 20 years, have demonstrated a performance drop of under 4%.

#### STORAGE

If conserved in a dry place and closed containers the product is conserved for 24 months.

#### PACKAGES

Buckets of: 15 Kg

#### EXPERIMENTATIONS CARRIED OUT IN YARDS CHECKED BY THE MINISTRY FOR CULTURAL HERITAGE AND ACTIVITIES

A product to use in the sector of cultural heritage, as well as rigorous laboratory studies, also requires careful checks in yards, aiming to verify real behaviour over time, stability, the absence of direct and indirect negative effects and possible reversibility. LEDAN TA3/N has been developed during a research promoted and financed by the Ministry for Cultural Heritage and Activities. The application tests carried out during the research had shown that the material corresponded to the requisites and can, for absence of negative effects, be used in interventions of monumental restoration.

#### SPECIFICATION ENTRY

Injections for re-adherence and filling up of voids in ornamental systems. LEDAN TA3/N is a low specific weight mortar with expansive power and very low soluble salt content. Tests carried out at Domus Aurea in Rome had shown a perfect filling of big voids with reduced weight.