



# LEDAN<sup>®</sup> MTX-L

Special binders

Binder for interstitial plastering of stone building parameter.

## PARTICULAR FEATURES

Excellent workability even without preliminary support wetting; easy leakage cleaning, chemical-mechanical compatibility with lime and pozzolana. The LEDAN MTX-L excellent capacity of mix water's retention during the first hours of application, avoids the quick draining.

## COMPOSITION OF FORMULATION

It is made up of special hydraulic binders, chemically stable and with very low soluble salt contents, inert flints, slate, high airing pozzolana and a special combination of fluidifying, retentive, airing and expansive additives both in plastic and in hydraulic phase. The special formulation, produced in 1/10,000 planetary dispersion for a time under 20 minutes, forms a homogenous pre-mix of a light grey colour.

## APPLICATION FIELDS

Hydraulic binder suited, in combination with both inert flints and inert calcareous, to the structural consolidation and to the contemporaneous restoration of interstitial plastering of de-cohered building structures and to their possible re-plastering "stone level".



**PREPARATION'S INSTRUCTIONS**  
LEDAN MTX-L is a binder; therefore must to be used mixed with clean inerts and opportunely known available in the intervention place preferably similar to the one used in the

manufacture realized. Knead energetically, for about three minutes, LEDAN MTX-L, inerts and water, reached the workability desired, apply in next 20 minutes.

## RECOMENDED DOSES

USE	LEDAN MTX-L	INERTS	WATER
LEVELLING	34 Kg	66 Kg	20 lt (max)
PLASTERING	45 Kg	55 Kg	24 lt (max)

## INSTRUCTIONS FOR USE

- 1) Pull down friable and incoherent parts of the masonries to consolidate. Work well, if is possible, voids and damages with high-pressure water jet machine.
- 2) Knead LEDAN MTX-L with the local inert, selected before, and clean water for about 3 minutes.
- 3) Apply the product with the special extruder, fitted with a rubber tube which has the size that allow to fill deeply any voids and damages.
- 4) At the plug-end, (8-15 hours) finish off manually with brush, scrapers and other tools able to give to the mortar the desired finishing off level.

## LIMITS FOR THE USE

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

## Special binders

## EQUIPMENTS FOR USE

LEDAN MTX-L application occurs with special high pressured air extruder that allows a quick application, without making dirty the building parameter and limiting the wasting of material.

PHYSICAL - CHEMICAL FEATURES					
SPECIFIC WEIGHT	<b>1,30</b> Kg/DM <sup>3</sup>	MEDIUM	ADHERENCE	<b>0,7</b> N/mm <sup>2</sup>	GOOD
INITIAL SETTING	<b>3</b> HOURS	MEDIUM	EXUDATION	<b>NONE</b>	EXCELLENT
FINAL SETTING	<b>6</b> HOURS	MEDIUM	STEAM PERMEABILITY	<b>8</b> μ	GOOD
WORKABILITY	<b>2</b> HOURS	MEDIUM	ELASTIC MODULE	<b>8.000</b> N/mm <sup>2</sup>	MEDIUM
RESISTENCE TO COMPRESSION	<b>10</b> N/mm <sup>2</sup>	MEDIUM	WATER RETENTION	<b>&gt;90%</b>	EXCELLENT
RESISTENCE TO BENDING	<b>3,5</b> N/mm <sup>2</sup> (28 gg)	MEDIUM	SHRINKAGE	<b>NONE</b>	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 MTX-L undergoing such a test does not cause efflorescence phenomena.

### DURABILITY

Some LEDAN MTX-L samples undergoing an accelerated aging cycle, simulating a natural ageing of around 20 years, have demonstrated a performance drop of under 3%.

### 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 MTX-L, focused to satisfy an ordinance of the Supervision to Heritage AA.AA. of Lazio that forbade the usage of common cement in consolidation works to the Middle Age walls of Bassiano (LT), has subsequently obtained raised consents, due to the excellent chromatic result and to the easiness of use. Among the most significant applications we mention the consolidation work of plastering of all the walls of San Marino and of Basilica del Santo.

### SPECIFICATION ENTRY

**Plastering and consolidation of stone structures carried out using an expansive mortar composed by LEDAN MTX-BINDER opportunely mixed, in yards with inerts mineralogically similar to the one present in the manufacture to restore. As for the product used, its principal chemical-physical features, the places and date of occurred testing must be declared. The producer must also supply the papers relating to the performed research activity, ratified by the Public Organ responsible for control thereof.**

TECNO EDILE TOSCANA  
via Monti Lepini, 14 04100 LATINA (ITALY)  
Tel (+39) 0773241293 Fax (+39) 0773611023  
www.tecnoediletoscana.it