

## TECHNICAL DATA SHEET

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Hydraulic binder for composition in the building yard of mortars for grouting with local sands

## ◆ PARTICULAR FEATURES

Excellent adhesive power, high thixotropicity, compatible and mixable with lime and pozzolana. Exceptional chromatic yield, durability of the added colours. Absence of efflorescences also in very wet environments.

## ◆ COMPOSITION OF FORMULATION

It is made up of kaolin and white calcareous, mineralogically pure and so with very limited presence of chromospheres ions disguised as iron, chromium, manganese, ext. undergone a special process of cocking in reducing environment and quickly cooled through a quenching and mixed after with white pozzolana. Special additives such as volumetric iperfluidifying, airing and stabilizing exalt of it the features both mechanical and physical.

## ◆ APPLICATION FIELDS

Produced appropriately formulated to solve problems related to plastering and reconstruction of lacking parts by ornamental elements made by stony material, such as statue, capitals, colonnade. Particularly suited in restoration of fountains.

## Ⓐ PREPARATION'S INSTRUCTIONS

LEDAN C30 is a binder; therefore must to be used mixed only with water and with clean and opportunely known inerts preferably similar mineralogically to the one used in the realization process of the manufacture to restore. Knead energetically, for about 3 minutes, LEDAN C30, inert and water, reached the workability desired, apply, if possible in the first twenty minutes since the preparation. Can be added to the mixture colouring earths in a percentage not over the 15% in weight of the finished product.

RECOMENDED DOSES			
USE	LEDAN C30	INERTS	WATER
LEVELLING	3,5 Kg	6,5 Kg	2,2 lt (max)
GROUTING	3 Kg	7 Kg	2,0 lt (max)

## INSTRUCTIONS FOR USE



- 1) Clean well the surfaces on which the intervention must be executed, taking care of removing friable parts, dirtiness any protective substance that can reduce the adherence between the support and the mortar for restoration.
- 2) Apply the mixture prepared in thicknesses not more than 3 cm par time.
- 3) If is necessary to reconstruct lacking parts of considerable dimensions "reinforce" with polypropylene fibre nets and do the restorations in more subsequently phases.

## LIMITS FOR THE USE



LEDAN C30 is a lime based mixture; is not advised the application in periods of extreme cold (with minimum temperatures less than 5° C) or extreme heat (with maximum temperatures over 35°C).

The application of LEDAN C30 is done generally with little manual tools that allows to shape the surfaces objects of the restoration depending on the needs.

PHYSICAL - CHEMICAL FEATURES					
SPECIFIC WEIGHT	1,80 Kg/DM <sup>3</sup>	MEDIUM	ADHERENCE	1,5 N/mm <sup>2</sup>	EXCELLENT
INITIAL SETTING	4 HOURS	MEDIUM	EXUDATION	NONE	EXCELLENT
FINAL SETTING	8 HOURS	MEDIUM	STEAM PERMEABILITY	10,5 μ	MEDIUM
WORKABILITY	2 HOURS	MEDIUM	ELASTIC MODULE	15.000 N/mm <sup>2</sup>	MEDIUM
RESISTENCE TO COMPRESSION	19 N/mm <sup>2</sup>	HIGH	WATER RETENTION	>85%	EXCELLENT
RESISTENCE TO BENDING	7,2 N/mm <sup>2</sup> (28 gg)	HIGH	SHRINKAGE	NONE	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 C30 undergoing such a test does not cause efflorescence phenomena.

#### 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 C30 had been studied and optimized also with the collaboration of Central Institute for Restoration, and of restorers that experimented the efficiency in their assigned yards. LEDAN C30 is being used since 1989 by specialized operators that prefer to make mortar in yard with personalized formulations. Is moreover a component of many finished formulations, produced by the present Company.

#### DURABILITY

Some LEDAN C30 samples undergoing an accelerated aging cycle, simulating a natural ageing of around 20 years, have demonstrated a performance drop of under 6%.

#### SPECIFICATION ENTRY

Hydraulic binder for composition of grouting mortars in building yard. LEDAN C30 is composed of special hydraulic binders and a mixture of retentives fluidificants and air entraining additives. To be applied it is necessary to mix it with selected inerts and sands of different granulometry similar for mineralogical composition to the original mortars and available in the same geographic area.

#### STORAGE

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

#### PACKAGES

Buckets of: 15 Kg

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