

TECHNICAL DATA SHEET



TEKNALAV

**SOLVENT-BASED RETARDER LAQUER
FOR THE REALIZATION OF AESTHETIC CONCRETE
WITH "WASHED" EFFECT EXPOSED AGGREGATES**

TEKNALAV is a positive solvent-based retardant lacquer applicable both downward and upward for the realization of aesthetic concretes with exposed aggregates and with a "washed" effect.

It slows down the setting and hardening of the concrete surface allowing its removal through high-pressure washing. The 12 different types, easily recognizable by their bright colors, help getting the appropriate depth of excavation. You will have to choose a digging depth correlated to the size of the aggregate to enhance the aesthetics but without the risk of easy fall off.

TEKNALAV is the ideal product for all different types of washed concrete surfaces: prefabricated panels, creations for street furniture and gardening, prefabricated products with immediate stretching, floors and sidewalks with exposed inert materials.

Its use is easy and profitable: it has an excellent coating effect so that it is sufficient to apply a single coat that dries quickly, creating a hard, abrasion resistant film that leaves little residues after its dismantlement making easy and fast the cleaning of the mold.



The washing depth and granulometry values recommended are approximate, as they depend on many factors: the correct and uniform application of the product, the type and quantity of cement, the water / cement ratio, granulometry mix size and fineness amount as well as time and temperature of the curing process.

NB: to obtain consistency in the aesthetic appearance of the surfaces with the minimum washing depth (in particular Micro - 0.1-0.2), it is necessary a good control of all these factors and their constancy in time.

DIRECTIONS OF USE

TEKNALAV should be mixed before use. It is preferable to use an electric mixer at low speed. It contains volatile solvent. Close the packaging after use.

NEGATIVE APPLICATION

TEKNALAV should be applied on the clean formwork in a continuous, uniform layer. The pigmentation of the product facilitates the operation highlighting its possible imperfect implementation. It is generally applied with a short-bristle roller or with a brush for small areas and touch-ups. It can be used by spraying, preferably with the air-less type.

Please follow the recommended doses: a shortage of product can result in aesthetic defects due to the inevitable small alterations of application; an excess prolongs the drying time and worsens the cleaning of the formwork.

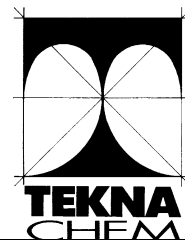
Type	Colour	Washing Depth	Recommended granulometry
S/Micro	Light Blue	ca. 0,2mm	0-3 mm
S /01	Blue	ca. 0,5mm	0-4 / 8 mm
S /02	Brown	ca. 1,0mm	2-4 / 8 mm
S /10	Green	ca. 1,5mm	4-8 / 10 mm
S /25	Yellow	ca. 2,0mm	4-8 / 10 mm
S /50	Red	ca. 2,5mm	6-9 / 12 mm
S /80	Grey	ca. 3,0mm	8-11 mm
S /100	Mustard	ca. 3,5mm	9-12 mm
S /130	White	ca. 4,0mm	12-16 mm
S /200	Orange	ca. 5,0mm	16-22 mm
S /300	Lilac	ca. 6,0mm	16-22 mm
S /400	Purple	ca. 7,0mm	18-25 mm



TEKNA CHEM S.r.l.

Factory: Renate (MB) - Via Sirtori, z.i. 20838 Tel.
+39 0362.91.83.11 Fax: +39 0362.91.93.96
E-mail: info@teknachem.it

The information provided in this data sheet, even if containing an advanced knowledge of the product, it doesn't exempt its users from performing accurate preliminary tests under the conditions of the product employment. Therefore, the company disclaims any responsibility for the improper use of the product.



TECHNICAL DATA SHEET



The product has a passivating effect on the formwork. Special attention should be paid to changes in production: it is advisable to apply 10 to 20 % more of product for its first application on a cleaned formwork and a second cleaning process will be performed (also with solvent and dismantling oil) in the passage from washed finishing to formwork bottom.

The concrete setting can begin when the product is touch dry and quite firm (between 15 and 30 minutes depending on weather conditions).

POSITIVE APPLICATION

TEKNALAV is applied by spray directly on the surface of the fresh concrete in one continuous, uniform layer (after obtaining complete pigmentation).

For horizontal surfaces and paving, it should be applied after smoothing; wait until the exudation water has disappeared from the surface.

For those structure precast with continuous mold, it can be immediately applied to the stripping.

The dried product protects the concrete from evaporation and possible light rain.

CONCRETE: MIX AND SETTING

The mixtures used for concretes with exposed aggregates are the most varied in relation to the aesthetic effect to be obtained. Generally, they are of uneven type: about 30% of fine particles (cement and aggregates such as fillers, marble powders or sands D max 1-1.5 mm) and 70% of the aggregates that you want to put in evidence by washing.

The workability depends on the setting conditions: for a deactivated floor casting it is required, a plastic consistency to prevent the sinking of rough aggregates, for negative applications it is preferable greater workability to facilitate the arrangement on the bottom formwork. In all cases it is necessary to prevent segregation of the mix which would lead to areas with different distribution of the aggregates and consequently with different depths washing and aesthetic appearance. It is recommended to use admixtures of the new generation (SUPERIOR or UNICUM) to ensure, in addition to a correct W/C ratio, the workability and cohesiveness adapted to the setting conditions.

Setting for negative application

The concrete will be casted on the formwork in a uniform layer, normally with a thickness not lower than 3 cm, very accurately to avoid the eventual abrasion or displacement of the retarder. For very fluid mixtures with risk of segregation, it is advisable to do more "layering". The following step consists in the concrete leveling with scrapers or trowels always being careful not to move the retardant.

Compaction can be done either through the formwork vibration (evaluate intensity, distribution and rates in relation to thickness and consistency) or with vibrating plates applied on the concrete surface. Prevent loss of grout from banks and separators: they create a densification of aggregate on the edges and a possible formation of dangerous crawl spaces in line to the future seals.

All work must be completed within 15-30 minutes after the casting and after this time do not generate any movements or vibrations of the concrete in contact with the retardant as the mixing water activates its active ingredient that starts performing its function.

Setting and positive application

The concrete will be casted with plastic consistency and finished with a vibrating screed. A "closed" surface should be obtained with continuous filament of coarse aggregates: their "sinking" and excess of cement paste on the surface do not allow obtaining satisfactory results after washing.

ACCELERATE CURING

There are no contraindications in adopting forced curing cycles for washed concrete surfaces; all the general guidelines on thermal cycling must be observed (start and heating time, maximum temperature and cooling) also considering the particular nature of the blends used and their aesthetic function.

The choice of the type of retarder to use is influenced by the time and maximum temperatures of the curing cycles; Preliminary tests are recommended.

WASHING

Commonly performed on a daily basis, therefore from the times of setting every 16 - 20 hours. It is possible to opt for a delayed washing after 48 and 72 hours: in this case it may be necessary to adopt a retarder with greater depth of excavation and preliminary tests are necessary.

After the dismantlement washing must be performed in the shortest time possible, within 2-4 hours maximum as the surface exposure to air neutralizes the effect of retarding, the setting of cement starts again, the washing becomes more difficult and less effective. Maximum attention should be paid especially in hot climates and windy.

For washing it is generally used water at high pressure. Specific automatic equipment with brushes and multiple water jets can be used. It is recommended a final thorough rinsing to remove residues of grout and concrete dust.

USE OF RECOVERY WATER ACQUE DI

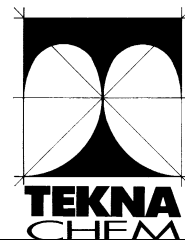
TEKNALAV does not contain substances which might cause harm to the use of washing waters in the production of concrete as a fraction of mixture water.



TEKNA CHEM S.r.l.

Factory: Renate (MB) - Via Sirtori, z.i. 20838 Tel.
+39 0362.91.83.11 Fax: +39 0362.91.93.96
E-mail: info@teknachem.it

The information provided in this data sheet, even if containing an advanced knowledge of the product, it doesn't exempt its users from performing accurate preliminary tests under the conditions of the product employment. Therefore, the company disclaims any responsibility for the improper use of the product.



TECHNICAL DATA SHEET



WARNINGS

Any equipment used in connection with TEKNALAV (pump motors, etc.), must be fireproof. Polytetrafluoroethylene seals are recommended.

CONSUMPTION 80-140 gr/m²

They depend on the type and application of the formwork.

PACKAGING

Metallic baskets of 20 Kg

STORAGE AND VALIDITY

Keep in a fresh and well-ventilated environment; not sensitive to frost. Valid for 12 months from date of manufacture in sealed original container.

SAFETY

Flammable product. For further information, please see the safety data sheet.

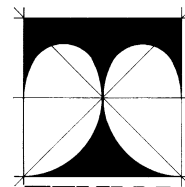
PRODUCT FOR PROFESSIONAL USE



TEKNA CHEM S.r.l.

Factory: Renate (MB) - Via Sirtori, z.i. 20838 Tel.
+39 0362.91.83.11 Fax: +39 0362.91.93.96
E-mail: info@teknachem.it

The information provided in this data sheet, even if containing an advanced knowledge of the product, it doesn't exempt its users from performing accurate preliminary tests under the conditions of the product employment. Therefore, the company disclaims any responsibility for the improper use of the product.



TECHNICAL DATA SHEET



TEKNA
CHEM



TEKNA CHEM S.r.l.

Factory: Renate (MB) - Via Sirtori, z.i. 20838 Tel.

+39 0362.91.83.11 Fax: +39 0362.91.93.96

E-mail: info@teknachem.it

The information provided in this data sheet, even if containing an advanced knowledge of the product, it doesn't exempt its users from performing accurate preliminary tests under the conditions of the product employment. Therefore, the company disclaims any responsibility for the improper use of the product.