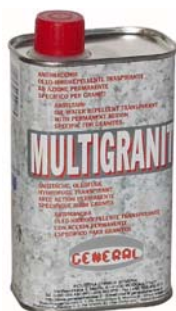




UNI EN ISO 9001:2008
Quality System Certified Company



TECHNICAL DATA SHEET PRODOTTO

MULTIGRANIT

**ANTISTAIN, OIL & WATER REPELLENT,
TRANSPIRANT WITH PERMANENT ACTION,
SPECIFIC FOR GRANITES**

- **FUNCTION** OIL/WATER-REPELLENT - ANTISTAIN
- **CATEGORY** IMPREGNATING AGENTS
- **SUBSTRATES** GRANITE (ALL TYPES)
- **PREPARATION** CLEAN, DRY AND ABSORBENT SUBSTRATES
- **APPLICATION** MECHANICAL, BRUSH, RAG
- **CONSUMPTION** 200 g/m² (average value)
- **VERIFICATION TEST** NECESSARY
- **SAFETY** SEE MATERIAL SAFETY DATA SHEET
- **STABILITY** STABLE PRODUCT
- **USE** INDOOR AND OUTDOOR
- **VISCOSITY** 0,75-0,80 mPas.

MULTIGRANIT is a product developed and tested at GENERAL laboratories; very innovative raw materials for the stone field have been used for this product and it has been optimised as well as possible the research of GENERAL concerning the surface protection. So, it can be declared that **MULTIGRANIT** is an exclusive product of GENERAL. **MULTIGRANIT** is a non-filming sealer/impregnator that, as all the range of the sealers of GENERAL, has high characteristics of permeability to the vapour and bars the penetration of the liquids, both oily and aqueous nature, without any change of the natural appearance of the treated materials.

CHEMICAL NATURE

The molecules used are well known for their **oil and water repellent** characteristics. The innovative aspect of **MULTIGRANIT** consists in fixing these atoms chemically to polymers of silicon nature which, besides increasing the water-repellent effect, also fasten with strong chemical bindings onto mineral substrates of siliceous nature (this includes all kind of granites). To ensure a high degree of penetration, and so a protecting impregnation, on micro-porous substrates (like the polished granites) our laboratories succeeded in insulating and building up a polymer of very small size in which oil repellent and water repellent molecules are together. The achieved result shows clearly the superiority of **MULTIGRANIT** if compared to the protecting sealers since long time on the market.

PREPARING THE MATERIAL TO BE TREATED

The product is absorbed by capillarity and the substrate to be protected must be **porous** and **absorbent** and perfectly **clean** and **dry** (and specially in case of outdoor application the material must be perfectly dry to avoid eventual bleaching on the surface). The low viscosity of the product and the high capacity of the solvent used to "wet" the substrate make it possible to obtain a good impregnation in depth. When the solvent evaporates, the active solid part chemically fastens onto the substrate and covers the capillary walls of the granite exposing outwards the oil/water-repellent atoms performing the protective action.

HOW TO APPLY

(THIS IS THE MOST DELICATE AND IMPORTANT PHASE OF THE PROTECTION PROCESS)

The absorption process is not immediate but requires time; the protective liquid must therefore remain in contact with the granite and wet it for at least 5-10 minutes. During this phase the air inside the pores of the material is replaced by the protective liquid and comes out in the form of bubbles.

The product has to be spread homogeneously to form a even layer wetting all the surface and it can be applied by a cotton cloth (not losing hairs) or by other suitable means (paint-brush, low pressure sprayer, etc.)



30-40 minutes after the application the excess of product not absorbed must be removed to avoid, because of drying and fastening on the surface, the appearance of the granite is changed by this excess or it is difficult to remove it. To achieve the optimal result of the protection treatment, it is suggested to affect a double application in fast sequence.

LIFE OF THE TREATMENT

The effectiveness of a properly done treatment with **MULTIGRANIT** has no limits of time that can be predetermined. It is logic that a strong mechanical wear on the surface or/and the repeated action of detergents can make appropriate a recurring application.

CONSUMPTION

Granites and natural stones in general have different absorption average and porosity also specially according to different kind of finishing (rough, grinding, fine grinding, glossy).
The consumption, depending on absorption capacity of the material, is considered to be approx. between 100 and 350 g/m².

VERIFICATION TEST OF THE PROTECTION

Protective action starts to develop when the solvent evaporates and it is usually completed in a time of 24 hours; so, a test of the protection effectiveness must be effected after this period of time.
The right impregnation of the support can be verified by pouring some oil or/and water drops; if the right quantity of product has been applied the drops shouldn't wet the surface and will run away because repelled by the protective.

SAFETY

MULTIGRANIT is a solvent-based product. Keep out from the reach of children. Correct handling requires ventilated premises and the use of clothing impermeable to solvents (gloves, eyewear, aprons, etc.) to prevent prolonged contact with the skin. After use, close the containers again. Once the solvent is evaporated, the active substance cures and becomes an inert mass not dangerous for the health. Further details are available on the label and material safety data sheet.

STABILITY

Store the product away from flames, sparks or sources of heat. Avoid overheating. Correctly stored, the product is stable.

TEST 1

Water absorption on porous substrate (unpolished granite with 9% open porosity) by soaking

HOURS SOAKED IN WATER	ABSORBED WATER %	
	TREATED SAMPLE	NOT TREATED SAMPLE
6	0.1	7.0
12	0.2	8.4
24	0.2	8.9
48	0.3	9.0
96	0.5	9.0
120	0.5	9.0

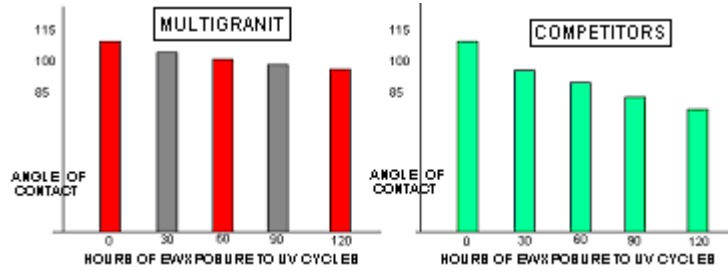
TEST 2

Olive oil absorption on porous substrate (unpolished granite with 9% open porosity) by soaking

HOURS SOAKED IN OIL	ABSORBED OIL %	
	TREATED SAMPLE	NOT TREATED SAMPLE
6	0.0	7.4
12	0.1	8.6
24	0.1	8.9
48	0.1	8.9
96	0.2	9.0
120	0.2	9.0

TEST 3

Stability to atmospheric agents: 120 hours of alternate UV ray (40W lamps) and condensation water (60°C closed environment) cycles



No visible yellowing.

TEST 4

Chemical resistance: continuous contact with simulating liquids by soaking (substrate: unpolished granite)

4 HOURS SOAKING IN SOLUTION	REMARKS	
	TREATED SAMPLE	NOT TREATED SAMPLE
Acid pH =1	No change	Dark rim/mark
Neutral pH=7	No change	Dark rim/mark
Alkaline pH=12	No change	Dark rim/mark

LIMITED LIABILITY

The information provided is based on bibliographies or our laboratory experience and should be considered general and not a formal guarantee. More specifically, any liability for faulty products, once the fault has been ascertained, shall in any case be limited to the sole purchase price of the product. All liability is disclaimed for implicit or explicit injury or damage caused by product use which is beyond our direct control.