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Systems



Certified Quality System since **FEBRUARY 1993**

*From Project to Jobsite*

## MICROBETON® ASPHALT GROUT

**MICROCONCRETE WITH REACTIVE MICROSILICAS AND VERY FINE MINERALS TO OBTAIN FLUID GROUTS WITH SHRINKAGE COMPENSATION, RHEODYNAMIC PROPERTIES, VERY HIGH STRENGTHS AND DURABILITY FOR ASPHALT-CEMENTITIOUS PAVEMENTS**

**Description** **MICROBETON® ASPHALT GROUT** is a premixed cement based product and reactive microsiliicas properly additivated in order to obtain highly fluid grouts with very high mechanical strengths, with shrinkage compensation and no bleeding, easy to cast in highly draining asphalt open grade with open porosity of 25÷30%; the product is also injectable or castable in holes, cavities, cracks, macroporous conglomerates.

**Advantages and characteristics** Very fluid grouts can be obtained by mixing with water and having the following main characteristics:

- Very low water/cement ratio to obtain very fluid grouts with very low viscosity
- No bleeding, shrinkage compensation, volumetric stability
- Long workability time when pouring or injecting
- Very high mechanical strengths and opening to traffic after 24 hours

**Fields of use**

- **Fluid grouts for filling of monogranular OPEN GRADE Asphalt with open porosity 25÷30%; broken stone (recommended basalt) granulometry approx. from 4 mm to 20÷25 mm, screed thickness from 40 to 70 mm: recommended prequalification made from the OPEN GRADE producer/applicator (see also instructions in ASPHALT GROUT MANUAL) in order to obtain semi-flexible asphalt-cementitious pavements, with even no joints, to be used for port areas, containers stock, airport areas, warehouses, forklifts loading areas, areas with high static, dynamic or mechanical stresses and with heavy traffic.**

- Consolidation of porous and not coherent conglomerates, wherever it is necessary :
  - the sealing or consolidation of gravelly or cementitious conglomerates
  - the sealing of cracks in cementitious conglomerates, in masonries, in rock (in these cases is recommended to saturate before with water).

**Method of use**

- Apply the **MICROBETON® ASPHALT GROUT** on OPEN GRADE which should be guaranteed by its producer, properly laid with vibratory finishing machine and rolled. The ASPHALT GROUT could be poured once the temperature of the OPEN GRADE Asphalt is lower than 30°C.
- Mix with a total 24 - 26% of mixing water depending on the required viscosity.
- Start adding approx. 21% of water and then pouring gradually the product.
- Add the remaining water and mix strongly for 5-6 minutes; the mixing must be homogeneous, with no lumps.
- The mixing time can be reduced if turbomixings or mixings with high speed are used. The grouts will result easy pumpable for about 1 hour if evaporation is avoided.
- The product can be mixed and automatically pumped with our TURBOFLOW MIXER (fed by big bags or by bulk silo)

**NOTE:** Our Fiduciary Applicators, with proper equipment, avail themselves of the Engineers guide and assistance of our Technical Department: *From Project to Job site.*

**Remarks** Information according to 2003/53/CE.

**Storage :** The product can be kept for at least 12 months if stored in dry and protected conditions, in the original packaging, between +5° C and + 35° C.

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**Packaging** Bulk, Bag of 25 Kg and Big bag of 1.000 Kg.

**Consumption of powder** about 5 Kg/m<sup>2</sup>/cm

**Technical characteristics (typical values)**

- MARSH CONE (nozzle 12,5 mm) viscosity approx. 13 - 18 seconds: the acceptable ranges of viscosity have to be established on the particular field of application quality control.

MICROBETON® ASPHALT GROUT		
Mechanical strengths	compr. MPa	flex. MPa
3 hours	/	/
1 day	25	4
7 days	55	6
28 days	65	8
90 days	75	10

- Setting and hardening times change depending on the climate or ambient conditions. Anyway the product formulation is time by time adapted to the climatic and ambient conditions.
- Dimensional stability: the formulation is calculated for a potential expansion 0,2–0,5 mm/m in conditions of no water loss for suction or evaporation.
- The Asphalt-Cementitious system "OPEN GRADE (asphaltic)+ ASPHALT GROUT (cementitious) can achieve the following typical strengths:

Compressive Strengths	8÷10 MPa
Elasticity Modulus	Approx 8000 MPa (ASTM D-4123)

**Precautions** Avoid using salty waters or containing chlorides.

**Safety indications** Read carefully the safety indications on the packaging, or consult the relevant Material Safety Data Sheet of this product.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage. Technical characteristic in this technical data sheet are up-to-dated periodically. Revision date of this technical data sheet is indicated below.