



Advanced
Pavement
Systems



Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

MICROBETON® ASPHALT GROUT

Very high resistance

MICROCONCRETE WITH REACTIVE MICROSILICA 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 very high strengths is a premixed cement based product and reactive micro-silica, properly activated in order to obtain high fluidity grouts with very high mechanical strengths, shrinkage compensation, no bleeding, easy to cast in open grade drainage asphalt with porosity from 25÷30%. The product is also easy injectable or castable in holes, cavities, cracks or macro-porous 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** (open porosity 25÷30 %) broken stone (recommended basalt) particle size approx. from 4 mm to 20÷25mm, screed thickness from 40÷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 stockages, 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 very high strengths** on **OPEN GRADE ASPHALT** which should be guaranteed by its producer, properly laid with vibratory finishing machine and rolled. The **ASPHALT GROUT** can be poured once the temperature of the **OPEN GRADE Asphalt** is lower than 30°C.
- Mix with a total 20% of mixing water depending on the required viscosity.
- Start adding approx. 18% 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 turbo mixings 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 **TURBOFLOW MIXER** (fed by big bags or by bulk silo) in order to reduce the mixing time considerably.
NOTE: Our allied applicators with appropriate tools benefit from the guidance and assistance of our office for of Engineering and Project Assistance: from Project to Jobsite.



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Remark 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.

Packaging Bulk, Bag of 25 Kg and Big bag of 1000 Kg.

Consumption of the powder about 5 Kg/m²/cm

Technical characteristics (typical values ASPHALT GROUT)

- MARSH FUNNEL viscosity approx. 120 seconds: the acceptable ranges of viscosity have to be established on the particular field of application quality control.

MICROBETON® ASPHALT GROUT Very high resistance		
Mechanical resistance	compr. Str.MPa	Flexural str. MPa
3 hours	/	/
1 day	45	6
7 days	75	9.5
28 days	105	11.3
90 days	115	13.4

- Setting and hardening times change depending on the climate or ambient conditions. In any case, the formula can be adapted to the applicative 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 system asphalt/cement OPEN GRADE (asphalt) + ASPHALT GROUT (cement) will provide typical resistances :

Compressive strength	> 10 MPa
Elasticity modulus	About 8.000 MPa (ASTM D-4123)

Remark Avoid the use of brackish water or salt water.

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

This information is based on our experiences and latest laboratory testing. The above information may be subject to modifications, which will be announced in the updated technical datasheets. Eventual changes to the information on top will be announced on www.tecnocem.it in which the technical datasheets are updated regularly and always the most updated can be found. Tecnochem Italiana cannot held responsible for poor results that are due to causes unconnected to the quality if the product or for defects deriving from factors different than the quality of the product including the wrong storage.

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