

MS 310

Variable Density Super Lightweight Foam Grout

Overview

Rigid polyurethane foam is a versatile material widely used throughout manufacturing and construction.

Stabila MS 310 base resin is mixed with compressed air, water and a hardener on location to produce a super lightweight filler grout.

The volume increase of the mixed foam is approximately 50% and the volumetric mass can be varied between 20 and 80 kg/m³.

Stabila MS310 can be made either hydrophobic or hydrophilic depending on the application

Applications

Due to the open cell-structure and low volumetric mass, the resultant foam can be used in numerous applications including the hydraulic lifting and equalization of slabs, ground stabilization and void filling; waterproofing and grouting techniques; soil improvement and the neutralisation of storage tanks, conduits, sewer lines etc.

System of Application

The injection system, mounted on a truck or trailer is composed of two storage tanks of equal capacity, a compressed air actuated dual pump unit and one or two injection nozzles. The first tank contains an aqueous solution of the MS 310 resin, the second tank contains hardener composed of water (97%).

By means of a compressor and the pump, the resin is injected at approximately 7 bar into the chamber of the injector nozzle. The special design of the chamber transforms the resin into foam. The hardener is then injected into the foam which lowers the PH level of the resin, starting the polymerisation process. The foam is then injected under pressure into the cavity where the hardening process will continue. Depending of the design and dimensions of the injection nozzle, a production capacity of up to 18 m³ per hour is possible. With double or triple injectors this can be 36 or 54 m³ per hour.

Technical Characteristics

Volumetric mass(kg/m ³)	Pressure resistance N/mm ² after 48hours	Pressure resistance N/mm ² after 90 days
13	0.01	0.13
20	0.06	0.24
22	0.08	0.26
30	0.10	0.37

Stabila MS310 is applicable till a maximum temperature of 370°C and a minimum temperature of -198 °C.

When hardened, the hard foam is hydrophobic and will not absorb water.

Stabila MS310 is extremely versatile. When produced for application such as

Stabila UK. Oxon. OX27 7SR
tel 01869 346010 fax 01869 345455

gardens and roof terraces, it can be made hydrophilic with a water absorbancy up to 60% of its volume. Alternatively, when used as a lightweight filler grout, the UF foam is made hydrophobic.

Decomposition

Stable. Unaffected by most chemicals, incompatible with strong oxidizing agents or concentrated acids or bases.

Stabila MS310 can be made to decompose for use as soil fertiliser.