QED Chemicals
Anti-Corrosion Specialists

Aqua-reactive PU Injection Resin

VPI 621 – Granular Soils / Gravels

VPI 621 is a solvent free, one component aqua-reactive polyurethane injection resin. Its principal application is stabilisation of damp to water saturated granular sands.
When 621 comes into contact with water, it reacts to produce an expanding cellular foam with consequential increase in volume from the initial liquid resin. The expansion process increases penetration of the resin into the pores of granular soils where it cures to form a chemically inert conglomerate.
The foam is hydrophobic and harmless to the environment. It resists chemical and biological attack. Accelerator is added to VPI621 to vary the speed of reaction for the required application.

Uses

Stabilising granular soils, even below water table level. May be used in granular soils as diverse as open gravel to clean running sands..

Advantages

An extremely efficient injection resin with excellent penetration into voids and pores of even fine granular sands. Produces a conglomerate with good compressive strengths. 621 is also effective in stabilising clean running sand.

Application

Injection is by a single component pump through injection pipes (Tube a Manchette, strainer or open ended) as appropriate. The speed of reaction is dependent on percentage of accelerator used and water temperature. Reaction times are set according to the soil types being injected.
If water flows through the soil being injected, 621 may be displaced from the injection zone before reaction is complete. Where such conditions are encountered, please contact our technical department.

Package & Storage

VPI 621 is supplied in 20kg drums. Accelerator is supplied in 2kg plastic containers. Store in original containers in a dry area, protect from heat and sunlight. Once opened, use as soon as possible.

Technical Data – Reaction Times (15ºC)

% Accel dosage	Induction Time	Gel Time
0.25%	6min 30 sec	100 min
0.50%	5min 30 sec	51 min
1.00%	3min 50 sec	17 min
2.00%	2min 20 sec	10 min
6.00%	1min 30 sec	4 min
10%	50 sec	1 min 10 sec