GALAXIE Slab Jack MAX

Two-component polyurethane slab lifting foam

Description

Galaxie Slab Jack MAX is a two-component polyurethane geotechnical foam engineered specifically for slab lifting, void filling, and subgrade stabilisation applications. The system combines a polyol resin with a polymeric isocyanate, metered and mixed at a 1:1 volumetric ratio via high-pressure plural-component injection equipment. Upon injection, the expanding foam exerts controlled lifting pressure beneath concrete slabs, filling voids and compacting loose subgrade material to achieve precise, measurable elevation recovery. Target in-situ core density is 40 kg/m^3)

Benefits

- Controlled expansion pressure for precise slab lift
- No excavation required – minimally invasive injection process
- Rapid cure – trafficable within 15 minutes of injection
- High compressive strength closed-cell foam resists subgrade moisture ingress
- Lightweight system minimises additional load on weak subgrade

General Application

- Slab lifting and relevelling (concrete driveways, footpaths, warehouse floors, airport aprons)
- Subgrade void filling and compaction beneath concrete slabs
- Infrastructure rehabilitation – road base stabilisation and culvert void remediation

Application Guidelines

Galaxie Slab Jack MAX must be installed exclusively by trained geotechnical contractors using calibrated high-pressure plural-component injection equipment (minimum 2,000 psi/140bar dynamic pressure capability). Injection ports (typically 16–20 mm diameter) are core-drilled through the concrete slab on a predetermined grid pattern based on site survey and void assessment. The foam is injected in controlled, timed shots; real-time monitoring of slab elevation via dial gauges or digital survey instrumentation is required throughout the lift sequence to prevent over-jacking. Injection volume per port and inter-port spacing must be determined by a qualified engineer based on slab area, void depth, and target lift magnitude.

Please contact Galaxie for technical support, injection port layout design assistance, and equipment recommendations.

Technical Data

GALAXIE Slab Jack MAX	
Appearance	Clear coloured liquid
Mix ratio	100:116 by weight 1:1 by volume
Density	1.07
Viscosity mixed	1,300 Cps
Cream time	11-17 seconds
Gel time	43-52 seconds
Rise time	100-125 seconds
Core density	38-42 kg/m^3

All technical data stated herein is based on tests carried out under laboratory conditions at 25°C

Packaging

Galaxie Slab Jack MAX is supplied in 200 Lt drums and 1000 Lt IBC (Component A – Polyol and Component B – Isocyanate). Drums must be stored and transported separately. Pre-condition both components to 18–25°C for a minimum of 24 hours prior to use to ensure optimal viscosity and reactivity. Agitate Component A thoroughly before use.

Storage

Galaxie Slab Jack MAX should be stored at room temperature (min 10°C, max 35°C), kept dry, and protected from direct sunlight. Both components must be stored upright in sealed original containers. Shelf life is 12 months from date of manufacture in unopened, correctly stored containers.

Health & Safety

Galaxie Slab Jack MAX must be used as directed and handled in accordance with the current Safety Data Sheet (SDS). Isocyanate vapours present an inhalation hazard; full-face air-supplied or appropriate cartridge respirator must be worn during injection operations. Impervious gloves, chemical splash goggles, and protective coveralls are mandatory. Ensure adequate ventilation at all injection and mixing points. In the event of skin or eye contact, flush immediately with large amounts of water and seek medical attention. Please contact Galaxie or your local representative for the current SDS.

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