Polyurethane Chemical Systems for Geo-Technical Applications

CONCRETE LIFTING, VOID FILL, UNDERSEALING AND SOIL STABILIZATION

24-003 (hydrophobic/hydro-Insensitive) is a 3.0 to 4.0 lbs per ft³ density, plural component, polyurethane foam designed for concrete lifting and void filling applications. This system is hydrophobic/hydro-Insensitive making it ideal for applications where water may be present under or around a concrete slab. This system offers excellent compressive and tensile strength values (based on ASTM test methods) and is highly resistant to chemicals and solvents.

24-003 Slow (hydrophobic/hydro-Insensitive) is a 3.0 to 4.0 lbs per ft³ density, plural component, polyurethane foam designed for concrete lifting and void filling applications that require a slow reactivity (cream time 15 seconds and rise time up to 60 seconds based on machine mix @ 120F) with excellent below slab flow characteristics. This system is hydrophobic making it ideal for applications where water may be present under or around a concrete slab. This system offers excellent compression and tensile strength values (based on ASTM test methods) and is highly resistant to chemicals and solvents.

24-486 is a 4.0 lbs per ft³ density, plural component, polyurethane foam ideally suited for concrete lifting and void fill applications. This system has excellent compressive and tensile strengths (based on ASTM test methods) and is highly resistant to chemicals and solvents.

24-486 SLOW is a 4.0 lbs per ft³ density, plural component, polyurethane foam designed for concrete slab undersealing and void filling applications. With an extended reactivity profile (cream time 80 seconds and rise time up to 380 seconds), 24-486 flows and reacts with good undersealing characteristics and minimal lift. This system has excellent compressive and tensile strengths (based on ASTM test methods) and is highly resistant to chemicals and solvents.

24-010 is a 2.5 lbs per ft³ density, plural component, polyurethane foam for concrete lifting and void fill applications. This system is ideally suited for general applications. This system is available in slow, regular and arctic formulations, and offers excellent resistance to chemicals and solvents.

24-019 (hydrophobic/hydro-Insensitive) is a 2.0 lbs per ft³ nominal density, plural component polyurethane foam designed for light duty concrete lifting, void filling and soil stabilization.

24-022 is a 3.5 lbs per ft³ density, polyurethane foam designed for uses in and around areas that require sub-grade cavity and substitute back fill applications. This system is formulated with low exothermic heat generation for spray and injection applications. Typical physical properties consist of 55 psi compression strength, closed cell content.
>95%, water absorption ≤0.03 lbs/ft². All test values are per ASTM approved test methods.

24-030 is a 4.0 lbs per ft³ nominal density, plural component, polyurethane foam designed for concrete undersealing and void filling applications with minimal lift characteristics that require a slow reactivity (cream time 4 seconds and rise time up 110 seconds based on machine mix @ 120F) with superior below slab flow characteristics. This system offers excellent compression strength at 100psi and tensile strength at 124 psi (based on ASTM test methods). This system is ideally suited for road and highway applications, commercial/industrial warehouse slabs where heavy forklift traffic is experienced, tank bottom stabilization and other situations where undersealing is required.

24-031 is a 6.0 lbs per ft³ density, plural component, polyurethane foam for concrete lifting. When higher compressive strength and tensile strength are required, this system is ideally suited for the application.

**SINGLE AND PLURAL COMPONENT SOIL AND ROCK STABILIZATION**

24-077132 is a hydrophobic, low viscosity (A component 200 cps / B component 340 cps), plural component polyurethane elastomer system designed for rock and soil stabilization applications. Compressive strength of >10,000 PSI and tensile strength of >8,100 PSI make this ideal for rock stabilization. This product is available in 55 gallon drums sets and 275 gallon tote sets.

24-015 is a single component, low viscosity (100 cps), polyurethane grout ideally suited for soil stabilization and water cutoff applications. Compressive strength exceeds 1,000 PSI. This product is available in 5 gallon buckets, 55 gallon drums, and 275 gallon totes.

**PIPE LINE, PIPE PADS/PILLOWS**

24-023 is a two component co-blown, polyurethane foam designed and used for constructing pipe line trench breakers, pipe pads and or pillows. This system was specifically formulated for great lift thicknesses without scorching or splitting during field applications. This system will process at 2.0 to 2.2 lbs per ft³ depending on thickness. It has been tested per ASTM test methods at 27 psi compression strength and a closed cell content >95%. 24-023 is an excellent choice for filling larges open pits, voids, trenches and areas that require a lightweight back fill substitute to soil, sand or stone.

**SUBSTITUTE BACKFILL AND VOID FILLS**

24-023 is a two component co-blown, polyurethane foam designed and used for constructing pipe line trench breakers, pipe pads and or pillows. This system was specifically formulated for great lift thicknesses without scorching or splitting during field applications. This system will process at 2.0 to 2.2 lbs per ft³ depending on thickness. It has been tested per ASTM test methods at 27 psi compression strength and a closed cell content >95%. 24-023 is an excellent choice for filling larges open pits, voids, trenches and areas that require a lightweight back fill substitute to soil, sand or stone.

**CRACK AND JOINT SEALING**
24-017 is a plural component, polyurea, crack sealing system developed for sealing cracks and joints in concrete and asphalt. This system can also be used for wood and masonry applications. This system can be machine processed or applied using various types of plural component caulking guns, and it can be formulated in various colors such as Lt Gray, Black, Brick Red or White.

POST AND POLE SETTING

24-008 is a 3.75 lbs per ft3 density, plural component, polyurethane foam with excellent strength developed for and used to set posts and poles in various applications. In addition the reaction times are designed for easy mixing and hand pour applications.

MISCELLANEOUS POLYURETHANE AND PROTECTIVE COATINGS

NCFI Polyurethanes offers numerous other systems for geo-technical, industrial, and commercial applications. Other applications include: high temperature insulation, USCG approved floatation foam, general purpose insulation foam, and slow rise cavity fill products. Coatings include: various polyureas, elastomeric, urethane, silicone and butyl.

GRACO EQUIPMENT PARTS & SERVICE

NCFI is an authorized Graco distributor with a complete inventory of Graco equipment and parts. These include plural component spray machines and coating rigs. NCFI maintains a complete inventory of repair parts on hand ready for immediate delivery in most cases. We also design and build complete trailer rigs to meet numerous applications and can rig box and van type vehicles. Our factory trained technical support team offers classroom and on-site operator training, and on-site equipment troubleshooting and diagnosis.

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