NCFI Polyurethanes
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24-010 Rigid Foam System

Technical Data Sheet

NCFI 24-010 is a two component, water blown, all PMDI based low density spray polyurethane foam system designed for concrete jacking and leveling, soil stabilization and void filling. NCFI 24-010 is dispensed using 1/1 by volume ratio equipment. It is available in multiple speeds for various seasons, climates and applications.

Typical Properties of Components

Component	B-24-010	A2-000
Appearance	clear amber liquid	clear brown liquid
Brookfield Viscosity @ 20 rpm	600 cps at 72ºF	200 cps at 72ºF
Specific Gravity	1.08	1.24
Weight per Gallon, lbs	8.9	10.3
Storage Temperature	60ºF - 90ºF	60ºF- 90ºF

Mix Ratio

By weight……100 parts poly : 116 parts iso
By volume……..100 parts poly : 100 parts iso

Typical Properties of Machine-Mixed System at 130ºF

Cream Time	5 seconds
Tack Free Time	10 seconds
Free Rise Core Density	2.8 pcf

Typical Processing Parameters*

Iso Temperature	110ºF to 140ºF
Poly Temperature	110ºF to 140ºF
Mixing Pressures	1000 psi static, 800 psi dynamic

* Using standard spray equipment with 1/1 by volume proportioning pumps capable of maintaining 800-1200 psi dynamic pressures. The Graco Reactor E20-series or better with a GX-7 gun is preferred equipment. NCFI 24-010 **B** is connected to the **resin/polyol** pump with the NCFI **A** being connected to the **isocyanate** pump.

Typical Physical Properties:

Density, pcf	**ASTM D1622**	**2.8**
Compressive Strength, psi	**ASTM D1621**	**38**
Compressive Modulus, psi	**ASTM D1621**	**1320**
Tensile Strength, psi	**ASTM D1623**	**46**
Shear Strength, psi	**ASTM C273**	**28**
Flexural Strength, psi	**ASTM D790**	**119**
Flexural Modulus, psi	**ASTM D790**	**4252**
Closed Cell Content, %	**NCFI TM 300**	**> 90**
Water Absorption, lbs./ft^2	**ASTM D2842**	**$\leq$ 0.08**
Resistance to Solvents		**Excellent**
Resistance to Mold and Mildew		**Excellent**
Maximum Service Temperature		**180ºF**

Storage and Handling

Store the poly from 50ºF to 90ºF. Avoid moisture contamination during storage, handling, and processing. For both components, pad containers and day tanks with either nitrogen or dry air (desiccant cartridge or air dryer @ -40ºF dew point). For optimum shelf life, the recommended storage temperature for iso is 50ºF to 90ºF. **Do not expose iso to lower temperatures – freezing may occur.** Store components at 70ºF to 90ºF for several days prior to use to minimize components being too viscous at time to take to field. Shelf life is 6 months for factory sealed containers.

Original: 05/2005
Revision 5: 06/2018