



## 23-025 Rigid Foam System

### Technical Data Sheet

NCFI 23-025 is a two-component, water blown, polyether, all PMDI based, rigid urethane foam system. This rigid foam has  $\leq 25$  Flame Spread and  $\leq 450$  Smoke in testing via ASTM E-84 at a molded density of 12 pcf.

### Typical Properties of Components

Component	B-23-025	A2-000
Appearance	Amber liquid	Transparent brown liquid
Brookfield Viscosity @ 20 rpm	3000 cps at 72°F	200 cps at 72°F
Specific Gravity	1.21	1.24
Storage Temperature	60°F - 95°F	40°F- 90°F

### Mix Ratio

By weight.....100 parts poly : 100 parts iso

### Typical Properties of Mixed System at 72°F

	Regular	Fast
Cream Time	55 seconds	40 seconds
Gel Time	140 seconds	60 seconds
Tack Free Time	150 seconds	65 seconds
Rise Time	160 seconds	85 seconds
Free Rise Core Density	7.5 pcf	7.5 pcf

### Process Parameters

Iso Temperature	80°F to 95°F
Poly Temperature	80°F to 95°F
Mold Temperature	95°F to 135°F

\* Demold time is dependent on shot size, and material and mold temperatures. NCFI recommends using a high-quality, properly applied wax or silicone release agent to prevent cured material from sticking to mold surfaces.

The Information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained there from. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variation in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the application disclosed. Full-scale testing and end product performance are the sole responsibility of the user. NCFI Polyurethanes shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond NCFI's direct control. NCFI MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendations, nor as an inducement to practice any patented invention without permission of the patent owner.

### Typical Foam Physical Properties

---

<b>Molded Density/Core Density</b>	<b>ASTM D1622</b>	<b>12.3 lb/ft<sup>3</sup> / 9.2 lb/ft<sup>3</sup></b>
<b>Compressive Strength*</b>	<b>ASTM D1621</b>	<b>236 psi</b>
<b>Compressive Modulus*</b>	<b>ASTM D1621</b>	<b>5773 psi</b>
<b>Flexural Strength*</b>	<b>ASTM D790</b>	<b>386 psi</b>
<b>Flexural Modulus*</b>	<b>ASTM D790</b>	<b>11614 psi</b>
<b>Tensile Strength*</b>	<b>ASTM D1623</b>	<b>131 psi</b>
<b>Thermal Conductivity*</b>	<b>ASTM C518</b>	<b>0.222 Btu in/ft<sup>2</sup>h°F</b>
<b>Flammability**</b>	<b>ASTM E84</b>	<b>20 FSI / 450 SDI</b>

\*Tested on the foam core.

\*\*Molded to 12 pcf, 1.5 inches thick, full tunnel width and length.

### Storage and Handling

---

Store the poly from 65°F to 95°F. 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 @ -40°F dew point). For optimum shelf life, the recommended storage temperature for iso is 64°F to 86°F. Shelf life is 6 months for factory sealed containers.

Original: 042017  
 Modified: 080917  
 Mod 2: 082517  
 Mod 3: 122817