



## 82-77 Foster Cryogenic Adhesive

### Colour

Black

### Application Consistency

Notched Trowel

### Blended Average Weight/U.S. Gallon (ASTM D1475)

(Supplied as a 3-part kit)

15.5 lbs./gal. (1.85 kg/l)

### Coverage Range (FSTM 71)

(Subject to nature of material being bonded)

Per 40 lb./18 kg:

1/16 inch – 66.7 sq. ft. (6.2 m<sup>2</sup> at 1.6 mm)

1/8 inch – 33.4 sq. ft. (3.1 m<sup>2</sup> at 3.2 mm)

1/4 inch – 16.7 sq. ft. (1.55 m<sup>2</sup> at 6.4 mm)

### Bonding Time (FSTM 67)

Air dry: 0-1 hour

Set through: 4 hours

Full cure: 1 week

(dependent on temperature)

### Pot Life (FSTM 91B)

1.5 hours at 73°F (23°C)

0.5 hours at 95°F (35°C)

### Service Temperature Limits (FSTM 70)

(Temperature at coated surface)

-320°F to 250°F (-196°C to 121°C)

### Wet Flammability (ASTM D 93)

Greater than 250°F (121°C)

### Combustibility (FSTM 44)

Combustible

**Foster Cryogenic Adhesive** is a chemically-curing composition which develops high tensile strength and adhesion, at room temperature, to a variety of surfaces including metal, wood, masonry and polyester plastics. It is supplied at virtually 100% solids enabling immediate bonding between non-porous surfaces without solvent entrapment problems.

**Cryogenic Adhesive** also can be used as a joint sealer/ adhesive. It often provides bonds stronger than the materials being joined. The cured film has excellent resistance to solvents, water and many chemicals. The adhesive also performs well with various materials after thermal shock exposure at cryogenic temperatures.

**Cryogenic Adhesive** contains no asbestos, lead, mercury, or mercury compounds.

### Limitations

Store between 40°F (4°C) and 100°F (38°C).

Apply between 60°F (16°C) and 100°F (38°C).

Pot life is longer at lower temperatures, shorter at higher temperatures.

Mixing large quantities also shortens pot life, thus mixing more than one kit at a time is not recommended.

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**FSTM:** Foster Standard Test Method



## FOSTER CRYOGENIC ADHESIVE 82-77

### Material Preparation

Mixing instructions: Mix Part A and B in a clean container with a cage type mixing paddle and a ½ inch (12.7 mm) heavy duty electric drill on slow speed (350 rpm). Mix thoroughly for 3 minutes making sure to scrape the sides and the bottom of the container. While mixing, slowly add Part C (aggregate) and mix an additional 2-3 minutes until uniform. Do not lengthen or shorten the mixing time. Do not thin.

Mixing ratios: Either mix the entire kit or divide each component into 2 equal parts and mix half of the kit at one time. Do not attempt to mix less than half of a kit.

### Application

Apply by trowel to clean dry surfaces only. Metal surfaces should be solvent cleaned and allowed to dry. When used in cryogenic applications (below -40°C), the metal surface must be sandblasted or primed with a polyamide epoxy primer.

### Application Temperature

Apply at 60°F to 100°F (16°C to 38°C) ambient temperature. At temperatures above 95°F (35°C), the pot life will be less than 30 minutes.

To prolong the pot life at high temperatures, **Foster Cryogenic Adhesive** should be spread out as much as possible immediately after mixing.

### Coverage Range

When used as a bedding compound or between surfaces of masonry or urethane foam, suggested thickness: 1/16 to ¼ inch (1.6 to 6.4 mm).

When used in cryogenic applications or where bonding to metal, suggested thickness: 1/16 to 1/8 inch (1.6 to 3.2 mm).

### Clean-Up

Before adhesive cures, clean tools and equipment with chlorinated solvent (non-flammable) or mineral spirits (flammable).

### For industrial use only.

This data sheet is based on specifications, data and test results available to us at the time of publication.

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\* If not applicable, within 6 months from date of supply.