



82-77

Product Data Sheet

PROPERTIES

COLOR:

Black

APPLICATION CONSISTENCY:

Notched trowel

BLENDED AVERAGE WEIGHT / U.S. GALLON (ASTM D1475):

Supplied as a 3-part 40 lb. kit.

15.5 lbs./gal. yields 2.6 gallons (1.85 kg/l yields 9.8 liters)

COVERAGE RANGE:

Subject to nature of material being bonded.

Per 40 lb. kit:

1/16 inch – 66.7 sq. ft. (6.2 m² @ 1.6 mm)

1/8 inch – 33.4 sq. ft. (3.1 m² @ 3.2 mm)

1/4 inch – 16.7 sq. ft. (1.55 m² @ 6.4 mm)

BONDING TIME:

Dependent on temperature.

Air dry: 0 – 1 hour

Set through: 4 hours

Full cure: 1 week

POT LIFE:

1.5 hours at 73°F (23°C)

0.5 hours at 95°F (35°C)

SERVICE TEMPERATURE LIMITS:

Temperature at coated surface.

-320°F to 250°F (-196°C to 121°C)

Cellular glass to cellular glass insulation:

-320°F to 250°F (-196°C to 121°C)

Cellular glass insulation to stainless steel*:

-320°F to 250°F (-196°C to 121°C)

*Note: at very low cryogenic temperatures (past -100°C), cellular glass to other metals, such as aluminum, may result in shear failure of the insulation due to differences in contraction rates of the metal and insulation.

WET FLAMMABILITY:

Greater than 250°F (121°C)

COMBUSTIBILITY:

Combustible

FOSTER® CRYOGENIC ADHESIVE

FOSTER® CRYOGENIC ADHESIVE has a chemically-curing composition, which develops high tensile strength and adhesion, at room temperature, to a variety of surfaces including metal, wood, and masonry. 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 fabricating 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. It is an ideal choice for bonding steel pipe shoes or saddles to pipe insulation assemblies.

CRYOGENIC ADHESIVE meets requirements for LEED IEQ 4.1 Low-Emitting Materials, Adhesives, and Sealants. 82-77 Part A VOC: 0 g/l, less water and exempt solvents. 82-77 Part B VOC: 0 g/l, less water and exempt solvents.

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 and 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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APPLICATION GUIDE FOR 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 1/2 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 to 3 minutes until uniform. Do not lengthen or shorten the mixing time. DO NOT THIN.

MIXING RATIOS:

FOSTER® CRYOGENIC ADHESIVE is supplied in 40 lb. kits. 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 beforehand and allowed to dry.

When used in cryogenic applications (below -40°F/-4°C), the metal surface must be sandblasted or primed with a polyamide epoxy primer.

APPLICATION TEMPERATURE

Apply between 60°F and 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 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 1/4 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). Dried 82-77 is extremely difficult to remove.

CUSTOMER SERVICE: (800) 832-9002

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ADEQUATE TESTS: The information contained herein we believe is correct to the best of our knowledge and tests. The recommendations and suggestions herein are made without guarantee or representation as to results. We recommend that adequate tests be performed by you to determine if this product meets all of your requirements. The warranted shelf life of our products is twelve months from date of shipment to the original purchaser or as otherwise provided on the certificate of analysis.

**For professional use only. Keep out of reach of children.
Consult Safety Data Sheet and container label for further information.**