



# 90-66

## Product Data Sheet

### PROPERTIES

**COLOR:**

Black

**APPLICATION CONSISTENCY:**

Brush, spray or roller

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

Mixed – 9.6 lbs. (1.15 kg/l)

**AVERAGE NON-VOLATILE (ASTM D2369):**

Mixed – 65.0% by volume (73.5% by weight)

**COVERAGE RANGE:**

Subject to the type of surface being coated.

3.0 to 3.5 gal./100 sq. ft. (1.22 to 1.43 l/m<sup>2</sup>) on a smooth non-porous surface. Porous or rough surfaces will require higher gallonage to attain required dry thickness

Dry Thickness: 0.031 to 0.036 in. (0.79mm to 0.91mm)

Equivalent Wet Coverage: 0.048 in. to 0.056 in. (1.22 mm to 1.42 mm)

**MIXING RATIO:**

1:1 by volume

**POT LIFE:**

Varies with temperature.  
6 – 9 hours at 77°F (25°C)

**DRYING TIME 73°F (23°C) 50% RH:**

Temperatures below 70°F (21°C), thicker films and applications between substrates will prolong dry time and require longer cure times.

Through: 48 Hours

Full Cure: 2 Weeks

**SERVICE TEMPERATURE LIMITS:**

Temperature at coated surface.  
-320°F to 230°F (-196°C to 110°C)  
Up to 250°F (121°C) intermittent

**WATER VAPOR PERMEANCE (TYPICAL AVERAGE):**

ASTM F1249: 0.01 perms (0.0066 metric perms) at 0.020 – 0.025 in. (0.51 – 0.64 mm) dry film thickness tested at 100°F (38°C) and 90% RH

**WET FLAMMABILITY (ASTM D93):**

Flash point: 75°F (24°C)

**COMBUSTIBILITY (DRY):**

Combustible

### FOSTER® CRYOGENIC VAPOR STOP SEALANT

**FOSTER® Cryogenic Sealant** is a two-part, black, elastomeric sealant designed for use in cryogenic applications as a vapor stop sealant. It is suitable for application to polyurethane foam, polyisocyanurate (PIR) foam, cellular glass, fibrous glass, aerogel and other rigid and flexible insulations in conjunction with aluminum, stainless steel, metals, wood and masonry construction materials.

**Cryogenic Sealant** has excellent resistance to moisture, water vapor and other gases. It is designed for very low temperature applications to seal seams where a water vapor tight insulation system is required. It is an excellent vapor stop material for use on cryogenic pipe lines and cryogenic equipment.

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

**LIMITATIONS**

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

Always test plastic materials for compatibility when using a solvent-based product.

Make certain this product is completely dry and the area free from solvent odor if food is involved.

Not suggested for application between two impermeable surfaces. As a vapor stop sealant, ensure the coating is able to fully dry after application. Do not trap solvent from 90-66 between the pipe and impermeable insulation or layers of impermeable insulation.

Not suggested as a joint sealant in impermeable insulation where the solvent will be trapped in the joint.

Not intended as an exposed finished coating for extended periods of time.

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# APPLICATION GUIDE FOR FOSTER CRYOGENIC SEALANT 90-66

## MATERIAL PREPARATION

### MIXING INSTRUCTIONS:

Add 90-66 Part B into Part A and mix thoroughly for about 5 minutes, using an air driven mechanical stirrer. Do not whip air into the product.

## APPLICATION

Apply only to clean, dry surfaces.

When used as a vapor barrier and/or vapor stop, 90-66 may be applied up to 2 gal./100 sq. ft. (0.81 l/m<sup>2</sup>) on vertical surfaces (21 mils/0.53 mm dry thickness). Apply in two coats with Mast-a-Fab® reinforcing mesh embedded between coats. Reinforcing mesh must be used for cryogenic applications.

Apply the 90-66 two to three inches on the pipe and extending up over each layer of insulation and onto the outer insulation surface. Avoid trapping solvent from wet 90-66 between two impermeable surfaces such as the pipe and insulation.

For best results the first coat may be applied followed by immediately embedding the Mast-A-Fab reinforcement. Allow the first coat to tack up for 2 hours or longer and re-smooth the mesh before applying the additional coat(s) to complete the seal. Be sure the mesh is smoothed into the tack coat before it completely sets and before the finish coats are applied.

When applying over rough or porous surfaces increase the coating volume to fully seal the surface leaving a minimum 31-35 mils (0.8 to 0.9mm) dry film thickness on the surface. Inspect for pinholes and over coat as necessary to complete a pinhole free finish. This may take 50% more material to achieve a full coating film with mesh embedded. Note: The pattern of the mesh may still be visible, but it must be completely covered.

When selecting mesh reinforcement Foster Mast-A-Fab is strongly recommended based on its mesh size, membrane thickness and flexibility. In all cases the mesh must be an open weave mesh allowing it to be embedded into the wet 90-66 sealant and be sufficiently thin such that the dried 90-66 film covers the entire mesh. Too thick a mesh may prevent formation of a full film with the mesh embedded completely.

Always allow the 90-66 to fully dry before covering with abutting insulation or jacketing.

## CLEAN UP

Use solvents such as chlorinated solvent (non-flammable) or mineral spirits (flammable) for cleaning tools and equipment. Completely clean all equipment before pot life expires and the adhesive sets up. 90-66 when dry is extremely difficult to remove.

## CUSTOMER SERVICE: (800) 832-9002

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