*Quality People. Building Solutions.*

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

**Date:** 3/26/2025
**Return Request:** 4/6/2025
**Project:** UAMS (CAMID)
**Supplier:** Comfort Systems USA (Arkansas), Inc.
**Manufacturer:** ACS
**Submittal:** Plumbing Hangers & Supports
**Submittal Number:** 22 05 29-02
**Drawing # and Installation:** Plumbing Drawings

**ARCHITECT**
Clark Kenersen
2020 Baltimore Avenue, Suite 300
Kansas City, MO 64108
816-474-8237

**ENGINEER**
Clark Kenersen
2020 Baltimore Avenue, Suite 300
Kansas City, MO 64108
816-474-8237

**GENERAL CONTRACTOR**
CDI Contractirs
3000 Cantrell Rd.
Little Rock, AR 72202
501-666-4300

**MECHANICAL SUBCONTRACTOR**
Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

**CSUSA PROJECT NO.**
**22-6069**
sean@comfortar.com

# THERMAFIBER® FIRE & SOUND GUARD® PLUS MINERAL WOOL INSULATION

Thermafiber® Fire & Sound Guard® Plus mineral wool insulation is designed to provide excellent thermal, noise control, and fire resistance in residential and light commercial construction applications. Fire & Sound Guard® Plus can be used in a variety of applications, including interior and exterior walls, ceilings, basement walls, and crawl spaces. These products are non-combustible, moisture-resistant, non-corrosive, non-deteriorating, and mold-resistant.[1]

1 Tested per ASTM C1338, Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings, ASTM International.


## Features

- Designed for interior and exterior wall applications
- Energy-saving thermal insulation[2]
- Exceptional sound and noise absorption
- Fire-resistant
- Easy to install

2 Savings vary. Find out why in the seller's fact sheet on R-values. Higher R-values mean greater insulating power.

## Standards, Codes Compliance

- NFPA 101, Class A-rated interior finish
- ASTM C665, Mineral Fiber Thermal Insulation for Buildings, Type 1 Compliant

## Physical Properties

| PROPERTY | TEST METHOD | VALUE |
|---|---|---|
| Corrosion of Steel, Aluminum, and Copper | ASTM C665 | Complies |
| Non-Combustibility | ASTM E136 | Complies |
| Non-Combustibility | CAN/ULC S114 | Complies |
| Water Vapor Permeance | ASTM E96 | Unfaced, 50 perms as tested |
| Water Vapor Sorption | ASTM C1104 | Sorption less than 1% by volume |
| Surface Burning Characteristics | ASTM E84 | Unfaced, Flame Spread 0, Smoke Developed 0 |
| Surface Burning Characteristics | CAN/ULC S102 | Unfaced, Flame Spread 0, Smoke Developed 0 |
| Fungi Resistance | ASTM C1338 | Complies |

## Installation

- **Measure & cut** — Fire & Sound Guard® Plus insulation is easy to cut with a serrated knife for custom fitting around electrical boxes, pipes, duct-work, wiring, or between non-standard studs and joists.
- **Squeeze & insert** — Fire & Sound Guard® Plus insulation is flexible and pliable; simply squeeze the sides to compress the insulation and insert into the desired wall.
- **Release & expand** — Once in place, Fire & Sound Guard® Plus insulation naturally expands to fill in the space, creating a snug, custom fit.

## Availability

| | R-VALUE[3] | SIZES | PIECE/BAG | SQ FT./BAG |
|---|---|---|---|---|
| Wood Stud Applications | R-11 | 3" x 15" x 47" | 10 | 48.96 |
| | | 3" x 23" x 47" | 8 | 60.06 |
| | R-13 | 3.5" x 15" x 47" | 8 | 39.20 |
| | | 3.5" x 23" x 47" | 8 | 60.06 |
| | R-15 | 3.5" x 15" x 47" | 8 | 39.20 |
| | | 3.5" x 23" x 47" | 8 | 60.06 |
| | R-21 | 5.5" x 15" x 47" | 6 | 29.37 |
| | | 5.5" x 23" x 47" | 6 | 45.04 |
| | R-23 | 5.5" x 15" x 47" | 5 | 24.48 |
| | | 5.5" x 23" x 47" | 5 | 37.53 |
| | R-30 | 7.1" x 15" x 47" | 3 | 14.70 |
| | | 7.1" x 23" x 47" | 3 | 22.50 |
| Steel Stud Applications | R-10 | 2.5" x 16" x 48" | 8 | 42.70 |
| | | 2.5" x 24" x 48" | 8 | 64.00 |
| | R-11 | 3" x 16" x 48" | 10 | 53.33 |
| | | 3" x 24" x 48" | 8 | 64.00 |
| | R-13 | 3.5" x 16" x 48" | 8 | 42.67 |
| | | 3.5" x 24" x 48" | 8 | 64.00 |
| | R-15 | 3.5" x 16" x 48" | 8 | 42.67 |
| | | 3.5" x 24" x 48" | 8 | 64.00 |
| | R-21 | 5.5" x 16" x 48" | 6 | 32.00 |
| | | 5.5" x 24" x 48" | 6 | 48.00 |
| | R-24 | 6" x 16" x 48" | 4 | 21.30 |
| | | 6" x 24" x 48" | 4 | 32.00 |

3 R-value is a measure of insulating ability. "R" means resistance to heat flow. The higher the "R" value, the greater the insulation power.

## Product Options

- Available in standard widths for both wood and steel stud framing.

Recycled Content Options[4]:

- EPA Choice Fiber (U.S. Government Buildings)..... Minimum 75%
- Standard Fiber.....70%

Formaldehyde-free product available. See Owens Corning publication "Thermafiber® Fire & Sound Guard® Plus Formaldehyde-Free Mineral Wool Insulation Data Sheet" (Pub. No. 10025220) for more information.

4 Recycled content options other than standard must be specified at time of order.

## Acoustical Performance

| | | COEFFICIENTS AT FREQUENCIES PER ASTM C423 | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PRODUCT | THICKNESS | 125 HZ | 250 HZ | 500 HZ | 1000 HZ | 2000 HZ | 4000 HZ | NRC |
| R-10 | 2.5" | 0.33 | 1.05 | 1.24 | 1.16 | 1.07 | 1.01 | 1.15 |
| R-11 | 3" | 0.51 | 0.99 | 1.18 | 1.03 | 0.99 | 0.96 | 1.05 |
| R-13 | 3.5" | 0.39 | 1.15 | 1.22 | 1.13 | 1.07 | 1.01 | 1.15 |
| R-15 | 3.5" | 0.51 | 1.28 | 1.21 | 1.13 | 1.07 | 1.03 | 1.15 |
| R-21 | 5.5" | 0.76 | 1.33 | 1.17 | 1.11 | 1.04 | 1.01 | 1.15 |
| R-23 | 5.5" | 0.71 | 1.26 | 1.14 | 1.10 | 1.04 | 1.02 | 1.15 |
| R-24 | 6.0" | 0.74 | 1.19 | 1.10 | 1.12 | 1.06 | 1.05 | 1.10 |
| R-30 | 7.125" | 0.79 | 1.15 | 1.15 | 1.10 | 1.07 | 1.04 | 1.10 |

## Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.com.

## Certifications and Sustainable Features

- Verified by ICC-ES to contain a minimum of 70% recycled content. See ICC-ES Evaluation Report VAR-1025 at icc-es.org.
- Environmental Product Declaration (EPD) has been certified by UL Environment. For more information, visit ul.com/epd.
- Fire & Sound Guard(R) Plus products have a published Health Product Declaration (HPD).

ICC ES SAVE





**Notes**

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via http://sds.owenscorning.com.

**THERMAFIBER, INC.**
ONE OWENS CORNING PARKWAY
TOLEDO, OH 43659 USA

**888-TFIBER1 [834-2371]**
**www.owenscorning.com/thermafiber**

Pub. No. 10025220-D. Printed in U.S.A. May 2023.

# 3M™ Fire Barrier Moldable Putty Stix MP+

## Product Data Sheet

FIRE BARRIER: UP TO 4 HOUR Fire Protection

SMOKE SEAL: L RATED Meets Optional L Requirements

WALL OPENING: UP TO 2 HOUR Fire Protection

SOUND BARRIER: STC 52 In STC 53-Rated Wall Assembly

CLASSIFIED UL

FILL, VOID, OR CAVITY
FOR USE IN THROUGH-PENETRATION
FIRESTOP SYSTEMS
SEE UL FIRE RESISTANCE DIRECTORY
90G9

ULC LISTED

FILL, VOID OR CAVITY
MATERIALS
90G9

LISTED C US Intertek

FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY

FM APPROVED

SUBJECT TO THE CONDITIONS OF APPROVAL
AS A WALL & FLOOR PENETRATION
FIRESTOP WHEN INSTALLED AS DESCRIBED
IN THE CURRENT EDITION OF THE FMRC
APPROVAL GUIDE

## 1. Product Description

3M™ Fire Barrier Moldable Putty Stix MP+ is a one-part, ready-to-use intumescent firestop containing a synthetic elastomer. The intumescent property of this material allows 3M™ Fire Barrier Moldable Putty Stix MP+ to expand and help maintain a firestop penetration seal for up to 4 hours in the event of a fire. It is often used to fill voids in large openings and/or complex firestop systems due to is moldability, re-enterability and smoke-seal properties (provides a draft and cold smoke seal for systems with L-Ratings).

3M™ Fire Barrier Moldable Putty Stix MP+ firestops penetrations passing through fire-rated floor, floor/ceiling or wall assemblies and blank openings. In addition to excellent thermal- and fire-resistance properties, 3M™ Fire Barrier Moldable Putty Stix MP+ helps minimize sound transmission through assemblies requiring an STC rating. 3M™ Fire Barrier Moldable Putty Stix MP+ is easily moldable by hand and exhibits excellent adhesion to a full range of construction substrates and penetrants.


**Moldable through penetration firestop with excellent smoke-seal capability.**

Available in the following colors: Dark Red

### Product Features

- Firestop tested up to 4 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- Provides draft and cold smoke seal (L-rating)
- Pliable and conformable—molds easily into required shape
- Helps reduce noise transfer*
- Will not dry out or crumble
- Excellent adhesion
- Re-enterable/repairable
- Low VOC**
- Halogen-free and solvent-free formula
- Excellent aging properties
- Red color recognized as a firestop

*Minimizes noise transfer — STC-Rating of 52 when tested in STC 53-rated wall assembly.
**Complies with the intent of LEED® NC-EQ Credit 4.1 for Low-Emitting Materials: Adhesives and Sealants, contains <250 g/L VOC contents (less $H_2O$ and exempt solvents per SCAQMD Rule 1168).

## 2. Applications

Typically used to seal gaps between cables in multiple penetrations and to firestop cable bundles, insulated pipe, electrical conduit, metal pipe and other through penetrations. Cable types covered include telephone, power/control and fiber optic inner duct. Also available in pad form as 3M™ Fire Barrier Moldable Putty Pads MPP+, which are ideal for protecting electrical box outlets. For more information visit our product catalog at www.3M.com/firestop.

## 3. Specifications

3M™ Fire Barrier Moldable Putty Stix MP+ shall be a one component, ready-to-use, intumescent elastomer capable of expanding a minimum of 3 times at 1000°F. The material shall be thixotropic and shall be applicable to overhead, vertical and horizontal firestops. Under normal conditions, 3M™ Fire Barrier Moldable Putty Stix MP+ shall be noncorrosive to metal and compatible with synthetic cable jackets. The putty shall be listed by independent test agencies such as UL, ULC, Intertek or FM. 3M™ Fire Barrier Moldable Putty Stix MP+ shall be tested to and pass the criteria of ASTM E 814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems and CAN/ULC S115 Standard Method of Fire Tests of Firestop Systems. 3M™ Fire Barrier Moldable Putty Stix MP+ meets the requirements of the IBC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NBCC.

**Typically Specified MasterFormat (2004)**
Section 07 84 00 – Firestopping

**Related Sections**
Section 07 84 16 – Annular Space Protection
Section 07 86 00 – Smoke Seals
Section 07 87 00 – Smoke Containment Barriers
Section 07 27 00 – Thermal and Moisture Protection Firestopping
Section 21 00 00 – Fire Suppression

# 4. Performance & Typical Physical Properties

| | |
|---|---|
| **Color:** | Dark Red |
| **Nominal Density:** | 10–12 lbs./gal. (1.2–1.45 kg/l) |
| **Surface Burning:** (ASTM E 84) | Flame Spread 0<br>Smoke Development 0 |
| **Heat Expansion:** | Begins @ 350°F (177°C), Significant @ 400°F (204°C)<br>Free Expansion is Nominal 3 times |

| | |
|---|---|
| **STC:** (ASTM E 90, ASTM E 413) | 52 when tested in STC 53 rated wall assembly |
| **VOC Less $H_2O$ and Exempt Solvents:** | < 250 g/L |

| | | | |
|---|---|---|---|
| **Large Stix**<br>**Retail Stix** | **Appx. Dimensions:** 1.5 in. dia. x 11.5 in. (38mm dia. x 292mm)<br>1.45 in. dia. x 6 in. (36.8mm dia. x 152.4mm) | **Appx. Unit Volume:** 20.3 cu. in. (331.6 cu. cm.)<br>9.9 cu. in. (161.9 cu. cm) | **Min. Unit weight:** 13.6 oz (385g)<br>6.4 oz (183g) |

# 5. Packaging, Storage, Shelf Life

**Packaging:** 1.5 in. dia. x 11.5 in. (38mm x 292mm) stix in cardboard box, individually wrapped in liner (10 stix/case) and 1.45 in. dia. x 6 in. (36.8mm x 152.4mm) individually packed in recloseable cardboard tube (retail package, 1 stix/tube).

**Storage:** 3M™ Fire Barrier Moldable Putty Stix MP+ should be stored indoors in dry conditions.

**Shelf Life:** 3M™ Fire Barrier Moldable Putty Stix MP+ shelf life is indefinite in original unopened containers. Product will not dry or crumble in opened containers. Normal stock and stock rotation practices are recommended.

# 6. Installation Techniques

*Consult a 3M Authorized Fire Protection Products Distributor / Dealer or Sales Representative for Applicable UL, Intertek or other third-party drawings and system details.*

**Preparatory Work:** The surface of the opening and any penetrating items should be cleaned (i.e. free of dust, grease, oil, loose materials, rust or other substances) to allow for the proper adhesion of the 3M™ Fire Barrier Moldable Putty Stix MP+. Ensure that the surface of the substrates are not wet and are frost free.

**Installation Details:** Moldable Putty MP+ can be used as a primary firestopping sealant, or as a secondary product in conjunction with other 3M Fire Protection Products such as 3M™ Fire Barrier Pillows, 3M™ Fire Barrier Composite Sheet CS-195+, 3M™ Fire Barrier Pass-Through Devices or the 3M™ Fire Barrier Putty Sleeve Kit.

An example of how the putty is to be installed when it is the sole product in a metallic pipe penetrations comes from UL System C-AJ-1027 "Moldable putty material kneaded by hand and applied to fill annular space to a minimum depth of 1 in. (25.4 mm), flush with top surface of floor. In wall assemblies, required putty thickness to be installed symmetrically on both sides of wall."

When used with 3M™ Fire Barrier Pillows, UL systems typically require the putty to be installed "within annulus at all corners of opening and extending a minimum 1 in. (24.5mm) in both directions from each corner, flush with top surface of floor or both surfaces of wall." Any voids between pillows should be filled with a minimum 1 in. (24.5mm) depth of putty.

In the case of cable tray applications, there are additional requirements for the application of putty such as installing the putty between the bottom of the cable tray and bottom of opening. Likewise, putty (or another system-approved sealant) is required between the top of the cable tray and bottom of composite sheet or pillows.

Consult each applicable UL system for specific putty installation requirements.

**Limitations:** **Note:** Over application (i.e. using excessive amount of material) of product to vertical surfaces may cause sagging, follow system details. Product is not impaired by freezing but should be warmed to at least 32°F (0°C) before applying.

# 7. Maintenance

No maintenance is expected to be required when installed in accordance with the applicable UL, cUL, ULC, Intertek, FM or other third-party listed system. Once installed, if any section of the 3M™ Fire Barrier Moldable Putty MP+ is no longer installed per original system parameters, remove the putty, clean the area, and install the proper thickness per system details ensuring it bonds to the substrate and adjacent putty. If mineral wool was used as backing material, replace with new mineral wool prior to installation of the putty (putty can be reused if it is free from contaminants and can be molded together at new/existing putty overlap).

# 8. Availability

| Description | Color | Size | Unit | Billing UPC Number | Units/Case | Price Unit |
|---|---|---|---|---|---|---|
| Moldable firestop putty stix (large) | | 1.5" dia. x 11.5" | Stix | 50051115-16526-4 | 10 | EA |
| Moldable firestop putty stix (retail) | | 1.45" dia. x 6" | Stix | 50051115-16561-5 | 12 | EA |

For additional technical and purchasing information regarding this and other 3M Fire Protection Products, please call: 1-800-328-1687 or visit www.3M.com/firestop. 3M™ Fire Barrier Moldable Putty Stix MP+ are available from 3M Authorized Fire Protection Products Distributors and Dealers.

# 9. Safe Handling Information

*Consult country-of-use Material Safety Data Sheet (MSDS) prior to handling and disposal.*

3M

**3M Building and Commercial Services Division**
3M Center, Building 223-2N-21
St. Paul, MN 55144-1000 USA
1-800-328-1687
www.3M.com/firestop

*Document Library*
*TS Data Sheet 08661;*
*08662;*
*08663;*
*08664*

**Public**
**Rev:**1
**Effective:** 05/17/99

**Status:** Active

# Super Silicone Adhesive/Sealants

## Data Sheet

| 3M Part No.(s) | 3M Part Descriptor(s) |
|---|---|
| 08661; | - 3 oz. Tube (Clear) |
| 08662; | - 3 oz. Tube (Black) |
| 08663; | - 1/10 Gallon Cartridge (Clear) |
| 08664 | - 1/10 Gallon Cartridge (Black) |

**3M Fax on Demand Identification Number:**

**Description**

3M Super Silicones Adhesive/Sealants are a paste-like, one-component material which cures to a tough, rubbery solid when exposed to moisture in the air. They will adhere to clean metal, glass, wood, ceramic, natural and synthetic fiber, painted surfaces, and many plastics. They are easy to use and exhibit excellent resistance to weathering, vibration, moisture, ozone and extreme temperatures.

**Features, Advantages, Benefits**

**Features**
- Fast Curing
- Flexible
- Adhesion to Many Substrates

**Advantages**
- High Temperature Resistance
- Good Weathering Resistance
- Good Water Resistance

**Benefits**

**Typical Physical Properties**

| | |
|---|---|
| **Container** | 3 oz. tube and 1/10 gallon cartridge |
| **Base** | Silicone |
| **Density lbs/Gallon (Appx.)** | 8.5 |
| **Color** | Clear & Black |

| | |
|---|---|
| **Flash Point - °F** | > 250°F |
| **Solids Content (Appx.)** | 100% |
| **Consistency** | Non-Sagging Paste |
| **Service Temperature - °F** | -76 to 400 |

**Product Uses**

**Performance Properties**

Cure Characteristics: (Exposed to air at @ 77°F and 50% RH

| | |
|---|---|
| Tack Free Time: | 10-20 Minutes |
| Cure Thru Time (1/8 inch thickness) | 24 Hours |

Physical Properties: (Measured on 1/4 inch thick samples cured for 72 Hrs. at 77°F and 50% RH

| | |
|---|---|
| Hardness, Shore A | 25 |
| Tensile Strength | 325 PSI |
| Elongation | 550% |

## Handling and Application Information

**Directions for Use**

Thoroughly clean surfaces to be bonded. Rubber surfaces should be abraded and wiped clean. Apply silicone to area that is to be sealed or bonded. The paste-like consistency makes it easy to tool with a spatula or wooden paddle. Super Silicones cure from the outside in. At conditions of 75°F and 50% RH, they form a tack free skin within 20 minutes. Tooling is not practical after the skin begins forming. Cure time is affected by humidity, degree of confinement, and thickness of the adhesive/sealant bead. Lower humidity and/or temperature will extend the cure time. Higher humidity and/or temperature will reduce the cure time. In applications where the adhesive/sealant is confined during cure, the time required for proper cure is generally lenthened.

**Applications**

- Sealing automotive trim
- Sealing drip rails
- Sealing taillight and sunroof assemblies
- Filleting and caulking joints to provide a water and dust barrier
- Sealing vinyl roof top fabrics

**Storage and Handling**

Store at room temperature. Rotate stock on a "first-in, first-out" basis. When stored at the recommended conditions in original, unopened containers, this product has a shelf life of 18 months.

**Precautionary Information**

Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product.

**Country**

US



**Important Notice to Purchaser**

The statements and technical information contained in this technical data sheet are based on tests and data which 3M believes to be reliable, but the accuracy or completeness of such statements and technical information is not guaranteed. **3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application.

* If 'Directions for Use' reference P.N.'s 8984, 8986, or 8987, please read below.
Federal and local air quality regulations may regulate or prohibit the use of surface preparation and cleanup solvents based on VOC content. Consult your local and Federal air quality regulations for information. When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe precautionary measures for handling these materials. Refer to product label and MSDS for P.N. 8984, 8986, or 8987 for detailed precautionary information.

**LIMITATION OF REMEDIES AND LIABILITY:** If the 3M product is proved to be defective, **THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT.**
3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

## For Additional Health and Safety Information

See Material Safety Data Sheet (Fax on Demand 1-800-305-0419), or call:**3M Automotive Aftermarket Division**3M Center, Building 223-6N-01
Phone: 877-MMM-CARS (877-666-2277)

## 3M Fax on Demand Identification Number

**Reference: Goto Ref**
**Author:**
Tonya L. Frisle/IM-IndMktsGp/3M/US

**This is the last page**

# Pipe

## Ordering Information

- When ordering, specify material, gauge (if non-standard), dimension and end styles.
- QF clamp-together Pipe is quick and easy to install, saving time and money on installation.
- Solid welded seams prevent leakage.
- Length is nominal 5'.
- Pipe larger than 24" diameter is flanged and constructed of highly durable 18 gauge material. Flanges are industry standard angle rings.

QF Pipe

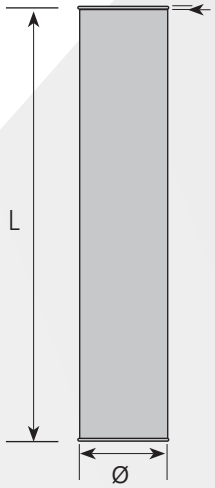
| Ø *in.* | Length *in.* | QF Std Pipe Weight *Lbs* | AFL Std Pipe Weight *Lbs* | QF 14ga Pipe Weight *Lbs* |
|---|---|---|---|---|
| 3 | 59.25 | 4.00 | 5.40 | |
| 4 | 59.25 | 5.35 | 7.05 | |
| 5 | 59.25 | 6.65 | 9.05 | |
| 6 | 59.25 | 7.93 | 10.73 | |
| 7 | 59.06 | 11.70 | 15.70 | |
| 8 | 59.06 | 13.25 | 17.75 | 36 |
| 9 | 59.06 | 14.92 | 19.92 | 40 |
| 10 | 58.75 | 16.60 | 23.10 | 44 |
| 11 | 58.75 | 18.10 | 25.10 | 49 |
| 12 | 58.75 | 19.75 | 27.75 | 53 |
| 13 | 58.75 | 21.40 | 29.90 | 57 |
| 14 | 58.75 | 27.30 | 36.80 | 61 |
| 15 | 58.75 | 29.25 | 44.25 | 66 |
| 16 | 58.75 | 31.15 | 47.15 | 70 |
| 17 | 58.75 | 33.09 | 49.59 | 74 |
| 18 | 58.75 | 34.00 | 51.00 | 79 |
| 19 | 58.75 | 36.00 | 55.00 | 83 |
| 20 | 58.75 | 38.00 | 57.00 | 87 |
| 21 | 58.75 | 40.00 | 59.5 | 92 |
| 22 | 58.75 | 42.00 | 63.50 | 96 |
| 23 | 58.75 | 44.00 | 65.5 | 100 |
| 24 | 58.75 | 45.82 | 68.82 | 104 |
| 26 | 59.00 | | 98.56 | |
| 28 | 59.00 | | 118.00 | |
| 30 | 59.00 | | 137.05 | |
| 32 | 59.00 | | 145.94 | |
| 34 | 59.00 | | 154.83 | |
| 36 | 59.00 | | 162.76 | |
| 38 | 59.00 | | 173.47 | |
| 40 | 59.00 | | 182.81 | |

## QF Material Options

| Galv | | | | SS | | | |
|---|---|---|---|---|---|---|---|
| | Gauges | Size (inches) Min. Ø | Size (inches) Max. Ø | | Gauges | Size (inches) Min. Ø | Size (inches) Max. Ø |
| Standard | 22 | 3 | 12 | Standard | 22 | 3 | 12 |
| | 20 | 13 | 24 | | 20 | 13 | 24 |
| Optional | 18 | 4 | 24 | Optional | 18 | 8 | 24 |
| | 16 | 8 | 24 | | 16 | 8 | 24 |
| | 14 | 8 | 24 | | | | |

## Flanged Material Options

| Galv (Std) | | | | SS | | | |
|---|---|---|---|---|---|---|---|
| | Gauges | Size (inches) Min. Ø | Size (inches) Max. Ø | | Gauges | Size (inches) Min. Ø | Size (inches) Max. Ø |
| Standard | 22 | 3 | 12 | Standard | 22 | 3 | 12 |
| | 20 | 13 | 24 | | 20 | 13 | 24 |
| | 16 | 26 | 40 | | 16 | 26 | 40 |
| | 14 | 42 | 50 | Optional | 20 | 4 | 12 |
| | 12 | 52 | 72 | | 18 | 8 | 24 |
| Optional | 20 | 4 | 12 | | 16 | 8 | 24 |
| | 18 | 4 | 24 | | | | |
| | 16 | 8 | 24 | | | | |
| | 14 | 8 | 50 | | | | |
| | 12 | 10 | 72 | | | | |
| | 10 | 12 | 72 | | | | |




**Construction**

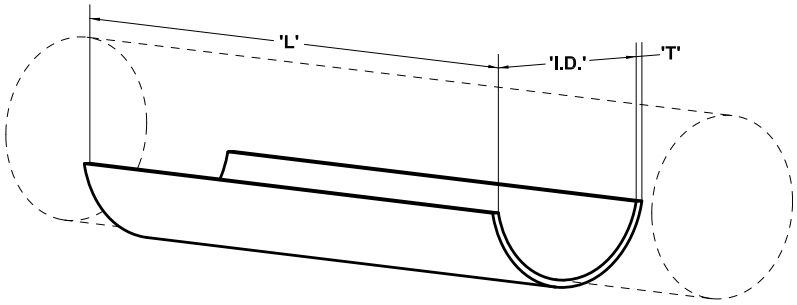
**Seam:** Longitudinal seam is laser or plasma welded (laser weld sizes 3" to 24" diameter, plasma weld on larger diameters).

## FIGURE 7750 (Standard) & 7751 (Domestic[1]) - MSS Compliant Insulation Protection Shields

Finish: G60 Galvanized Coating
Material: Steel, ASTM 1011 type B
MSS SP-58, Type 40*
Federal Specification WW-H-171, Type 41*

* Complies when used within the pipe size, insulation thickness, and compressive strength of insulation as specified by MSS SP-58.

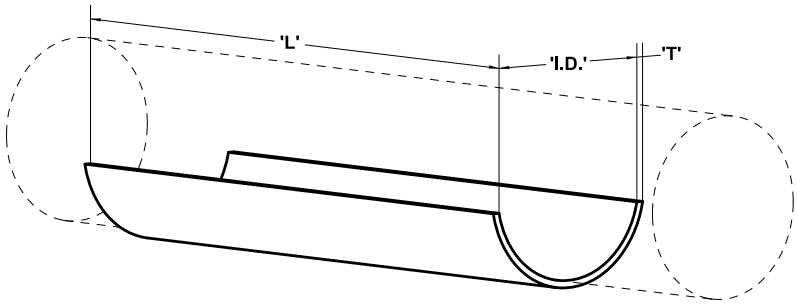
[1] Domestic shields are ordered on demand (SOD)




| Catalog Number | | Shield Size | L | | I.D. | | T | | | Required Hanger Size | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Standard | Domestic[1] | | in. | mm | in. | mm | in. | mm | gauge | | Lbs. |
| FNW7750Z0150 | FNW7751Z0150 | 1-1/2 | 12 | 305 | 1.91 | 48.4 | 0.047 | 1.2 | 18 | 1-1/2” | 0.47 |
| FNW7750Z0200 | FNW7751Z0200 | 2 | 12 | 305 | 2.38 | 60.4 | 0.047 | 1.2 | 18 | 2” | 0.58 |
| FNW7750Z0250 | FNW7751Z0250 | 2-1/2 | 12 | 305 | 2.88 | 73.2 | 0.047 | 1.2 | 18 | 2-1/2” | 0.71 |
| FNW7750Z0300 | FNW7751Z0300 | 3 | 12 | 305 | 3.50 | 88.9 | 0.047 | 1.2 | 18 | 3” | 0.86 |
| FNW7750Z0350 | FNW7751Z0350 | 3-1/2 | 12 | 305 | 4.00 | 101.6 | 0.047 | 1.2 | 18 | 3-1/2” | 0.98 |
| FNW7750Z0400 | FNW7751Z0400 | 4 | 12 | 305 | 4.52 | 114.7 | 0.047 | 1.2 | 18 | 4” | 1.10 |
| FNW7750Z0450 | FNW7751Z0450 | 4-1/2 | 12 | 305 | 5.00 | 127.0 | 0.047 | 1.2 | 18 | 5” | 1.28 |
| FNW7750Z0500 | FNW7751Z0500 | 5 | 12 | 305 | 5.31 | 135.0 | 0.047 | 1.2 | 18 | 5” | 1.38 |
| FNW7750Z0550 | FNW7751Z0550 | 5-1/2 | 12 | 305 | 5.56 | 141.2 | 0.047 | 1.2 | 18 | 5” | 1.39 |
| FNW7750Z0600 | FNW7751Z0600 | 6 | 12 | 305 | 6.66 | 169.1 | 0.059 | 1.5 | 16 | 6” | 2.02 |
| FNW7750Z0700 | FNW7751Z0700 | 7 | 12 | 305 | 7.65 | 194.3 | 0.059 | 1.5 | 16 | 8” | 2.31 |
| FNW7750Z0800 | FNW7751Z0800 | 8 | 12 | 305 | 8.70 | 220.9 | 0.059 | 1.5 | 16 | 8” | 2.79 |
| FNW7750Z1000 | FNW7751Z1000 | 10 | 18 | 458 | 10.86 | 275.8 | 0.059 | 1.5 | 16 | 10” | 5.25 |
| FNW7750Z1200 | FNW7751Z1200 | 12 | 24 | 610 | 12.83 | 326.0 | 0.071 | 1.8 | 15 | 12” | 9.55 |

## FIGURE 7753 - Light Duty Insulation Protection Shields

Material: Carbon Steel, ASTM A653, type A/B
Finish: G60 Galvanized Coating




| Catalog Number | L | | I.D. | | | T | | | Required Hanger Size | Weight |
|---|---|---|---|---|---|---|---|---|---|---|
| | in. | mm | in. | mm | ± in (mm) | in. | mm | gauge | | Lbs. |
| FNW7753Z0000 | 11.9 | 302 | 1.90 | 48.3 | 0.093 (2.38) | 0.024 | 0.6 | 24 | 1-1/2” | 0.25 |
| FNW7753Z0001 | 11.9 | 302 | 2.38 | 60.5 | 0.093 (2.38) | 0.024 | 0.6 | 24 | 2” | 0.31 |
| FNW7753Z0002 | 11.9 | 302 | 2.87 | 72.9 | 0.093 (2.38) | 0.024 | 0.6 | 24 | 2-1/2” | 0.38 |
| FNW7753Z0003 | 12 | 305 | 3.50 | 88.9 | 0.093 (2.38) | 0.047 | 1.2 | 18 | 3” | 0.88 |
| FNW7753Z0004 | 12 | 305 | 4.00 | 101.6 | 0.093 (2.38) | 0.047 | 1.2 | 18 | 3-1/2” | 1.01 |
| FNW7753Z0005 | 12 | 305 | 4.50 | 114.3 | 0.093 (2.38) | 0.047 | 1.2 | 18 | 4” | 1.13 |
| FNW7753Z0006 | 12 | 305 | 5.00 | 127.0 | 0.125 (3.18) | 0.047 | 1.2 | 18 | 5” | 1.26 |
| FNW7753Z0007 | 12 | 305 | 5.63 | 143.0 | 0.125 (3.18) | 0.047 | 1.2 | 18 | 5” | 1.40 |
| FNW7753Z0008 | 12 | 305 | 6.62 | 168.1 | 0.125 (3.18) | 0.047 | 1.2 | 18 | 6” | 1.66 |
| FNW7753Z0009 | 12 | 305 | 7.63 | 193.8 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 8” | 1.91 |
| FNW7753Z0010 | 12 | 305 | 8.62 | 219.0 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 8” | 2.16 |
| FNW7753Z0013 | 12 | 305 | 9.63 | 244.6 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 10” | 2.41 |
| FNW7753Z0014 | 12 | 305 | 10.75 | 273.0 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 10” | 2.69 |
| FNW7753Z0015 | 12 | 305 | 11.75 | 298.5 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 12” | 2.94 |
| FNW7753Z0016 | 12 | 305 | 12.75 | 323.9 | 0.250 (6.35) | 0.047 | 1.2 | 18 | 12” | 3.19 |

ASC Engineered Solutions

# Quik-Shield Thermal Hanger Shield
# Fig. QUIKSHIELD

## Description

Quik-Shields are economically priced 180° thermal hanger shields providing a continuous section of insulation and factory applied jacketing meeting ASTM E 96A (maximum 0.02 perm) through a variety of pipe hangers. The jacket extends beyond the galvanized steel shield and beyond the insulation insert for a neat, joint with both the adjoining and the field-applied top insulation. To assure proper support in all situations, high density 450 PSI structural inserts are installed on units for 10" pipe with 1" wall thickness and on all units for 12" pipe and larger. Quik-Shields meet the ASTM E84 Standard Flame Spread -5-, Smoke Developed -5-. Rounded shield corners on all commercial size units.

## Dimensions

| | ½" to 1½" | 2" to 5" | 6" to 8" | 10" to 12" | 14" to 18" | 20" to 24" |
|---|---|---|---|---|---|---|
| Insulation Length | 6" 150 mm | 6" 150 mm | 9" 230 mm | 9" 230 mm | 12" 300 mm | 9" 230 mm |
| Shield Length | 4" 100 mm | 4" 100 mm | 6" 150 mm | 6" 150 mm | 10" 250 mm | 6" 150 mm |
| Shield Guage | 22 ga. 0.9 mm | 22 ga. 0.9 mm | 18 ga. 1.3 mm | 18 ga. 1.3 mm | 12 ga. 2.8 mm | 18 ga. 1.3 mm |
| Compressive Strength | 100 PSI | 100 PSI | 100 PSI | Cal Sil 100 PSI Insert 450 PSI | Cal Sil 100 PSI Insert 450 PSI | 360° Insert 450 PSI |

## Specifications

**Applications:**

- For indoor use on flat surfaces, clevis or other band-type hangers.
- Pipe sizes 16 inch and larger in clevis hangers only.
- Chilled to steam piping and dual temperature lines.
- Hanger spans per MSS SP-58 Table A3.
- Available for pipe 1/2 inch through 24 inches.
- Insulation thickness 1/2 inch (to 6" pipe) through 4 inches.

**Materials/Construction:**

- 100 PSI Calcium silicate meeting ASTM C-533 Type 1, C-585, C-795, E-84, Thermal Conductivity ('k') .40 @ 75° mean.
- Adhesive complying with NFPA 90-A, ASTM E-84
- G-90 Galvanized steel shield, small check per ASTM A-653 (replaces A-527). Rounded corners for safety.
- Factory applied jacketing meeting ASTM E 96A (maximum 0.02 perm), ASTM D-774, D-828 and E-84.
- Structural insert (12" pipe and larger) 450 PSI calcium silicate meeting ASTM C-656 Type II, Grade 5, C-795 and E-84
- All units and components are asbestos free and 100% made and assembled in the U.S.A.

VEP An ASC Engineered Solution

| PROJECT INFORMATION | APPROVAL STAMP |
|---|---|
| Project: | ☐ Approved |
| Address: | ☐ Approved as noted |
| Contractor: | ☐ Not approved |
| Engineer: | Remarks: |
| Submittal Date: | |
| Notes 1: | |
| Notes 2: | |

# Quik-Shield Thermal Hanger Shield
# Fig. QUIKSHIELD

## Allowal Loads – Recommended Spans

| | Clevis | Trapeze |
|---|---|---|
| 2½" Pipe | 275 lbs.<br>10 ft. (3.0 m) | 145 lbs.<br>10 ft. (3.0 m) |
| 3" Pipe | 340 lbs.<br>10 ft. (3.0 m) | 160 lbs.<br>10 ft. (3.0 m) |
| 4" Pipe | 380 lbs.<br>10 ft. (3.0 m) | 170 lbs.<br>10 ft. (3.0 m) |
| 6" Pipe | 605 lbs.<br>10 ft. (5.2 m) | 330 lbs.<br>10 ft. (3.0 m) |
| 8" Pipe | 800 lbs.<br>10 ft. (3.0 m) | 510 lbs.<br>10 ft. (3.0 m) |
| 10" Pipe | 1,160 lbs.<br>10 ft. (3.0 m) | 830 lbs.<br>10 ft. (3.0 m) |
| 12" Pipe | 1,400 lbs.<br>10 ft. (3.0 m) | 1,175 lbs.<br>10 ft. (3.0 m) |
| 14" Pipe | 1,800 lbs.<br>10 ft. (3.0 m) | 1,250 lbs.<br>10 ft. (3.0 m) |
| 16" Pipe | 2,600 lbs.<br>10 ft. (3.0 m) | See MaxSpan<br>R.H. |
| 18" Pipe | 3,300 lbs.<br>10 ft. (3.0 m) | See MaxSpan<br>R.H. |
| 20" Pipe | 8,000 lbs.<br>10 ft. (3.0 m) | See MaxSpan<br>R.H. |
| 24" Pipe | 9,500 lbs.<br>10 ft. (3.0 m) | See MaxSpan<br>R.H. |

## Material Specifications

- Calcium Silicate, 100 PSI Meeting ASTM C-533 Type 1, C-585, C-795 and E-84, Flame Spread -0-, Smoke Developed -0-.
- High Compressive Strength Inserts, 450 PSI, Standard For Pipe 12" and Larger, Meeting ASTM C-656 Type II Grade 5, C-585, C-795, E-72, and E-84, Flame Spread -0-, Smoke Developed -0-. 20" Pipe and larger are 180° of this material.
- Vapor Barrier Jacket of Non-Reactive Polyester Meeting ASTM D-744, D-828, C 1136, E 96 and e 84 Flame Spread -5-, Smoke Developed -5-.
- Adhesive Complying to NFPA 90-A and ASTM E-84, Flame Spread -10-, Smoke Developed -0-.
- Galvanized Steel Shields, G-90 Small Check per ASTM A-653 (Replaces A-527).
- 100% American-Made Components and Construction.
- Asbestos-Free Materials.
- Unit Tested to ASTM E-84. Rated Flame Spread -5-, Smoke Developed -5-.