

HUSHCORE™ *BARRICADE™* System

For External Acoustical Duct & Pipe Lagging

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The work consists of furnishing a HUSHCORE™ *BARRICADE™* System for HVAC duct and pipe systems as described in this specification and/or shown on the drawings.
- B. Install *BARRICADE™* System on ductwork where indicated on the drawings
 - 1. Mechanical insulation specified in Section [] should be omitted in locations noted to have the *BARRICADE™* System

1.2 SUBMITTALS

- A. Include construction details, materials, and dimensions of individual components.
- B. Detail methods of attachment.
- C. Copy of ASTM E-1222 test results from an independent lab shall be included in the submittal.

1.3 QUALITY ASSURANCE

- A. Company specializing in the manufacture of acoustical and vibration systems and equipment/related accessories with not less than 30 years documented successful experience for work comparable to work of this project.
 - 1. All component products outlined in this specification shall be furnished by a single manufacturer.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. **BRD Noise and Vibration Control, Inc.**, PO Box 127, 112 Fairview Avenue, Wind Gap, PA, 18091, Phone: (610) 863-6300, Fax: (610) 863-4230, E-mail: info@brd-noise.com, Website: www.Hushcore.net.
- B. Alternates must be submitted and approved 10 days prior to project bid date as “or equal” compliant.

2.2 HUSH WRAP™ ACOUSTICAL PIPE AND DUCT LAGGING

- A. HUSH WRAP™ model LVQ-210-LAG Composite Sound Insulation
- B. Composite shall meet Class “A” per ASTM E84 flammability.
- C. Temperature range for the material shall be -10°F to 180°F.
 - 1. “R” Factor shall be 9.0 for the composite
- D. Acoustical Performance (Insertion Loss) data shall meet the listed values when tested in accordance with ASTM E-1222.

Hz	<u>315</u>	<u>400</u>	<u>500</u>	<u>630</u>	<u>800</u>	<u>1000</u>	<u>1250</u>	<u>1600</u>	<u>2000</u>	<u>2500</u>	<u>3150</u>	<u>4000</u>	<u>5000</u>
IL	2	2	8	13	11	23	27	28	30	30	27	31	32

2.3 HUSH SEALANT™ ACOUSTICAL CAULK

- A.** HUSH SEALANT™ model HSAC-100
 - 1. Follow manufacturers directions for application
 - 2. Use in accordance with section 3.2
- B.** Shall be applied everywhere necessary to achieve an air tight finished installation.
- C.** Shall be non-hardening, permanently flexible formulation

PART 3 – EXECUTION

3.1 SITE CONDITIONS

- A.** Verify that site conditions are ready to receive work in compliance with manufacturer recommendations.
- B.** Commencement of installation indicates acceptance of site conditions by the installer.
- C.** Ensure that piping and fittings surfaces, equipment and ductwork are clean and dry and that acoustical insulation is clean and dry, and in good mechanical condition with all factory applied vapor or weather barriers intact and undamaged.
- D.** Maintain ambient temperatures and conditions required by manufacturers of adhesives, mastics and insulation cements during and after installation for a minimum period of 24 hours.
- E.** Insulation shall be protected from moisture and weather during storage and installation.

3.2 INSTALLER SCOPE OF WORK

- A.** Install materials and accessories in accordance with manufacturer's written instructions.
- B.** Ensure that testing of piping and fittings, equipment and ductwork has been successfully completed prior to installing insulation.
- C.** Replace existing pipe, equipment and/or duct insulation disturbed in making new connections with new insulation and covering to match existing.
- D.** On cold surfaces where a vapor barrier must be maintained, insulation shall be applied with a continuous, unbroken moisture and vapor seal. All hangers, supports, anchors, or other projections that are secured to cold surfaces shall be insulated and vapor sealed to prevent condensation.
- E.** Where insulated pipes or ducts pass through sleeves or openings, the full specified thickness of the insulation shall pass through the sleeve or opening. Where fire-stopping material is used in fire rated walls, butt insulation tight to fire and smoke stopping material, or to collar, at wall and floor penetrations. Where fire and smoke stopping material does not extend full depth of sleeve, insulation shall extend inside sleeve to butt against fire and smoke stopping material.
- F.** Material coverage shall be 100% of the covering area without air gaps.
 - 1. Corners of rectangular duct treatment shall be caulked with HUSH SEALANT™ and taped with FSK matching tape.
 - 2. All other joints and seams shall have minimum 1½" overlap of barrier layer only onto next piece with HUSH SEALANT™ and FSK tape.
- G.** Banding, adhesive and mechanical fasteners such as stick pins shall be used to attach and support the material in place (by others).