



## Air Duct Board-M with Hydroshield® Technology

**Knauf's high performance air duct board offers unmatched IAQ protection with Hydroshield Technology.**

**Q: What is Hydroshield Technology?**

A: Hydroshield Technology is a proprietary moisture hold-out technology developed by Knauf Insulation for duct insulation. Basically, Knauf modified the properties of the fiber glass board to enhance the low porosity characteristics of the mat facing on the airstream surface and reduce the opportunity for water to penetrate the board.

**Q: Why is moisture holdout important?**

A: While liquid water should be kept out of any HVAC system regardless of the materials employed, Hydroshield Technology reduces the opportunity for water from condensing coils and other sources to penetrate the airstream surface of the duct board. This ensures the optimal thermal and acoustical performance of the insulation. It also helps prevent IAQ problems that could develop because of water collecting in the insulation.

**Q: Does Hydroshield Technology affect the performance of Air Duct Board-M?**

A: The only effect is to enhance the water hold-out properties of the airstream surface of the insulation. Hydroshield Technology has been carefully engineered to maintain the thermal and acoustical performance of the insulation and the durability and low friction loss properties of the mat facing.

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### Q: What other advantages does Air Duct Board-M with Hydroshield Technology offer?

A: By combining this technology with a low-porosity airstream surface and the application of an EPA-approved antimicrobial agent, Air Duct Board-M provides both outstanding performance and unmatched protection against IAQ problems.

The system's features include:

- Smooth mat facing for less resistance to airflow and 20% lower porosity to air than coated products
- Tough nonwoven mat facing construction to resist abuse from fabrication and cleaning
- Low thermal conductivity of 0.23 at 75°F (24°C) mean temperature
- Lower installed cost than insulated sheet metal systems
- Excellent sound absorption characteristics
- Shiplap joints for secure seals and low system air leakage
- FSK vapor retardant facing
- Assured insulation thickness

### Q: What other factors should be considered to help prevent IAQ problems in air duct systems?

A: The principal culprit in duct-related IAQ problems is microbial growth, which requires two things for spores to grow: 1) nutrients like dust or dirt; and 2) a conducive environment (temperature and water). ASHRAE and numerous independent studies confirm that if these criteria are met, microbial growth occurs equally on any duct surface, including bare sheet metal. The most common sources of duct-related IAQ problems are inadequate system filtration or filter maintenance and water from condensing units collecting in ducts immediately downstream from air handlers.

### Q: Does fiber glass duct insulation contribute to IAQ problems?

A: No. The use of fiber glass duct products will not be detrimental to indoor air quality or cause health problems in systems that are properly designed, installed, operated and maintained. On the contrary, fiber glass insulation materials significantly improve indoor environments by controlling heat loss or gain, reducing condensation and providing outstanding sound control.

### Q: Does duct cleaning compromise the performance of Hydroshield Technology?

A: No. Both the tough mat facing and the Hydroshield Technology are engineered to withstand the abuse associated with cleaning and normal maintenance of duct systems. However, to maintain the optimal performance of Air Duct Board-M with Hydroshield Technology, cleaning should be done in accordance with guidelines published by the North American Insulation Manufacturers Association (NAIMA publication #AH 122, Cleaning Fibrous Glass Insulated Air Duct Systems, Recommended Practice).

### Q: Is more information available on Air Duct Board-M with Hydroshield Technology?

A: For easy online access to information about all of Knauf's products, 24 hours a day, visit the Knauf Web site at [www.KnaufInsulation.com](http://www.KnaufInsulation.com).

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### LEED Eligible Product

Use of this product may help building projects meet green building standards as set by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. Credit 4.1 - 4.2 Recycled Content  
Credit 5.1 - 5.2 Regional Materials



At Knauf, we manufacture a wide variety of products that serve a common goal, helping to make the most of our planet's energy resources. A family-owned global company, we understand and are committed to high standards in quality, performance and environmental responsibility. Every step we take today toward energy conservation helps ensure better lives for generations to come.