

DWX – ACOUSTIC BARRIER FOR DUCTING

Technical Data Sheet

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Acoustic, fire and thermal insulation specialists

Application

The **SIDERISE® ‘DWX’ Series acoustic barrier** is particularly suited for use as an external cladding to sheet metal ducts. The insulation layer is an efficient thermal insulation material, the outer heavy polymeric membrane enhances acoustic performance and the outer foil faced barrier forms an effective vapour barrier.

The product is used in many varied applications and industries including construction, marine, automotive, HVAC and OEM.

Common applications include: external lining of ductwork and ventilation equipment, concrete columns, generators, compressors, process plant and electrical equipment

Product Description

A soft flexible quilt with an outer heavy polymeric acoustic membrane, offering excellent durability and sound insulation qualities that can be used in a variety of applications.

Acoustic Performance

The improvement in sound transmission loss for the application of DWX to a lightweight structure is dependent on a number of factors.

These include:

- Selected membrane weight
- Selected Insulation layer
- Surface weight of the original background sheet
- Presence of a primary insulation layer

In addition, it is common to apply the barrier on to a mineral fibre insulation layer. This material acts as a resilient spacing layer (positions the barrier away from the original background whilst limiting mechanical coupling).

The type and thickness of this material will also change the increase in sound transmission loss. Frequently this layer additionally acts as the thermal insulation treatment.

Our technical department would be pleased to provide indicative performance values against provision of details for a specific condition. Typical level of improvement in sound reduction performance for the application of a single layer of DWX to a 0.8mm steel duct is: 18dB (mean value for frequency range 100 – 3150 Hz)

Technical Specification

☒ Properties

Form supplied (mm)	Standard sheet size: 2000mm x 1200mm
Standard thickness (mm)	Insulation layer 25mm nominal
Surface weight (25mm Insulation layer)	DW5P or DW5P/NPF – 6 Kg/m ² nominal overall DW10P or DW10P/NPF – 11 Kg/m ² nominal overall
Insulation layer type	Std - Resin bonded glass fibre quilt NPF – Polyester / PP ultrafine fibre
Insulation layer density	Std – 16 kg/m ³ nominal NPF – 12 kg/m ³ nominal
Acoustic membrane type	Flexible EPR and Thermoplastic Polymeric Barrier
Acoustic membrane characteristics	Limp Heavy Membrane
Acoustic membrane	DW5P or DW5P/NPF – 5 Kg/m ² nominal (2.5mm) DW10P or DW10P/NPF – 10Kg/m ² nominal (5.0mm)
Reaction to Fire (finished product)	Class 0 to UK Building Regulations: BS 476, Part 7: Class 1 BS 476, Part 6: I12, I ₍₁₎ 6

Environmental

SIDERISE® ‘DWX’ series acoustic barrier is environmentally friendly.

- It contains no Volatile Organic Compounds (VOCs) and no very Volatile Organic Compounds (vVOCs)
- Zero Ozone Depleting Potential
- Global Warming Potential of less than 5
- Recyclable

Additional Information

The following information is available upon request or via download from our website:

- 1/3rd octave data for the acoustic membrane available on request
- Safety Data Sheet

Technical Support

For further information please contact our technical team at technical.sspl@siderise.com

Context

The information in this datasheet is believed to be accurate at the date of publication. SIDERISE has a policy of continuous product improvement and reserves the right to alter or amend the specifications of products without prior notice. SIDERISE does not accept responsibility for the consequences of using the products described outside of the recommendations within this datasheet. Expert advice should be sought where there is any doubt about the correct specification or installation of SIDERISE products.

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