DPF/RL SERIES

ACOUSTIC BARRIERS

FOR DUCTWORK

A FLEXIBLE AND FIRE RESISTIVE RESIN BONDED ROCKFIBRE LAMELLA MAT WITH AN OUTER HEAVY POLYMERIC ACOUSTIC MEMBRANE, OFFERING EXCELLENT DURABILITY AND SOUND INSULATION QUALITIES, THAT CAN BE USED IN A WIDE VARIETY OF APPLICATIONS.

- Class '0' fire rated
- High acoustic performance
- Good dampening characteristics
- No need for a spacing layer

THE SIDERISE® 'DPF/RL' SERIES ACOUSTIC BARRIER FOR DUCTWORK RANGE IS FREE OF LEAD, UNREFINED AROMATIC OILS AND BITUMEN.

The product is primarily intended to improve the sound transmission loss of lightweight thin sheet structures

SIDERISE® 'DPF/RL' series acoustic barrier for ductwork comprises a flexible resin bonded rockfibre lamella mat with an outer heavy polymeric acoustic membrane. The exposed surface of the product is finished with a Class 'O' reinforced H & V aluminium foil. The rear is finished with an anti-dusting flexible polymer net.

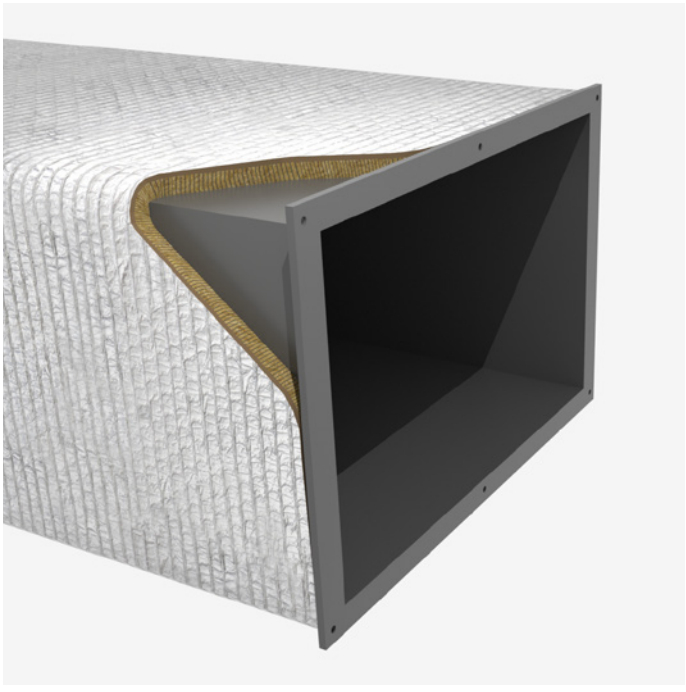
The product is primarily intended to improve the sound transmission loss of lightweight thin sheet structures. It is particularly suited for use as an external cladding to sheet metal ducts. The rockfibre insulation layer is an efficient thermal insulation material and the outer foil faced barrier forms 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.

Technical specification

Form supplied (mm)	Standard sheet size: 2000mm x 1200mm
Standard thickness (mm)	Insulation layers 25, 40 & 50
Surface weight (25mm Insulation layer)	**DPF5/RL** – 6 Kg/m^2 nominal overall **DPF10/RL** – 11Kg/m^2 nominal overall
Insulation layer type	Resin bonded rockfibre lamella mat
Insulation layer density	45 Kg/m3 nominal
Acoustic membrane type	Flexible Polymeric Barrier
Acoustic membrane characteristics	Limp Heavy Membrane
Acoustic membrane thickness	**DPF5/RL** – 2.5mm nominal **DPF10/RL** – 5mm nominal
Acoustic membrane surface weight	**DPF5/RL –** 5 Kg/m2 nominal **DPF10/RL –** 10Kg/m2 nominal
Outer surface finish	Standard Class 'O' H & V Glass filament reinforced Aluminium Foil Facing
Fire resistance	BS 476, Part 7: Class 1 BS 476, Part 6: I<12, I(1)<6



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Product installation

SIDERISE® 'DPF/RL' acoustic barrier is normally fixed by the use of through mechanical fixings such as insulation support pins with non-return washers. The frequency of use is influenced by the orientation of the barrier (e.g. vertical or underside of horizontal) and the presence of any secondary cladding providing additional restraint.

As a general guide fixings should be provided at 300mm centres. Suitable insulation support pins include: spot-welded; separate adhesive and self-adhesive. In the case of the latter, it is essential to secure the self- adhesive base to the background by additional mechanical fixing e.g. blind riveting, self-tapping screws, etc.

To maximise acoustic performance, it is important to maintain continuity of the sound barrier membrane. For this reason, a strip of the insulation backing should be removed along one edge to form a minimum 25mm overlap of the barrier. The overlap joint thus formed should be sealed by the application of a self-adhesive aluminium foil tape (min .75mm).

The anti-dusting polymer net rear facing may optionally be removed immediately prior to fitting. This action will improve the product's bending characteristics.

Acoustic performance

The improvement in sound transmission loss for the application of DPF/RL to a light-weight structure is dependent on a number of factors.

These include:

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

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 DPF/RL to a 0.8mm steel duct is:

18dB (mean value for frequency range 100 – 3150 Hz)

Additional options

The following options are available:

- Use of weather proofing wrap for external application.
- Can be supplied with alternative thickness insulation layer for specialist application.

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

Environmental

SIDERISE® 'DPF/RL' 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

Technical support

For further information please contact our technical team at the address on the following page.

FURTHER INFORMATION

Available CPD's

Contact SIDERISE® for further information on our CPDs:

- Internal Treatment of HVAC elements - Absorption
- External Treatment of HVAC elements – Sound break out
- Sound Energy / Acoustic Principles

Sales and technical support

Contact our team for sales and technical support

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