

# iNSpira-Wrap Acoustic

iNSpira-Wrap Acoustic is constructed from strips of (lamella) of ROCKWOOL bonded to a viscoelastic acoustic membrane. The acoustic solutions are engineered to enhance noise control to circular and rectangular ductwork as well as various types of pipework.

## ADVANTAGES

- Thickness maintained at corners, bends and fixing locations to maintain superior acoustic performance
- Single application of materials
- Easy to handle and install
- Excellent thermal insulation properties

## APPLICATIONS

iNSpira-Wrap Acoustic is constructed from strips (lamella) of ROCKWOOL bonded on edge to ROCKWOOL Acoustic Membrane to provide high resistance to compression:

- Reinforced aluminium foil (inner)
- ROCKWOOL lamella acoustic insulation
- ROCKWOOL Acoustic Membrane
- Reinforced aluminium foil (outer)

iNSpira-Wrap Acoustic is a strong pre-formed ROCKWOOL pipe section precovered with ROCKWOOL Acoustic Membrane:

- ROCKWOOL pipe section
- ROCKWOOL Acoustic Membrane
- Reinforced aluminium foil (outer)

## DIMENSIONS

| iNSpira-Wrap Acoustic |                    |
|-----------------------|--------------------|
| Length                | 1200mm             |
| Width                 | 1000mm             |
| ROCKWOOL Thickness    | 25mm, 40mm, 50mm   |
| Mass layer            | 5kg/m <sup>2</sup> |

Other forms of insulation, sizes, thicknesses, mass layer types and surface weights may be available to special order.

## PERFORMANCE

### Thermal conductivity

Typical lambda values for this product would be: iNSpira-Wrap Acoustic: 0.039 W/mK (at 10°C mean product temperature)

### Service temperature and limiting service temperature

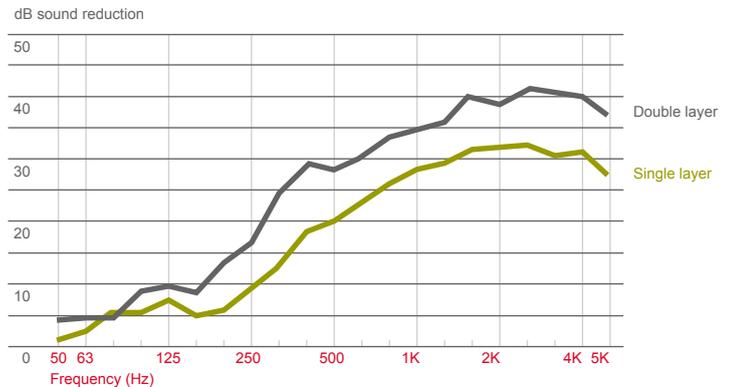
iNSpira-Wrap Acoustic can be used to provide thermal and acoustic insulation to pipes and equipment operating at temperatures in the range 0°C to 230°C. The outer facing temperatures should not exceed 80°C. At temperatures below ambient, the foil facing must be continued onto the pipe surface in order to maintain the vapour barrier.

### Test programme and results

iNSpira-Wrap Acoustic has been independently tested at the Acoustical Investigation & Research Organisation (AIRO) laboratory.

### iNSpira-Wrap Acoustic 25mm dB improvements

dB improvements through 0.8mm steel duct for single and double layers of iNSpira-Wrap Acoustic.



The test programme conducted at AIRO was designed to indicate as closely as possible the true-to-life acoustic performance of iNSpira-Wrap Acoustic when applied to ductwork. iNSpira-Wrap Acoustic was installed in-situ on a 6 metre length of 60mm x 1000mm duct. As expected, sound leakage was noted at inaccessible duct bearer locations during the test. As with other likely on-site irregularities, this leakage may not have been adequately represented by a more simple flat panel test. To show the actual improvements provided by iNSpira-Wrap Acoustic, the noise reduction provided by the original 'untreated' duct is excluded from the above graph. The weighted sound reduction for a single layer of iNSpira-Wrap Acoustic is 30dB; double layer 36dB.

