Baron Insulation

Technical Data Sheet

# GLASSWOOL DUCTWRAP

## EXTERNAL DUCTWORK INSULATION BLANKET

### Description

Ductwrap Insulation is manufactured from 80% recycled glass using a thermoset resin producing fine non-combustible fibers and forming into an insulation blanket and supplied in rolls. Sisalation® Heavy Duty Facing Foil is applied to one side for condensation management. The Glasswool blanket component of Ductwrap is made from 22kg density, flexible and resilient glasswool, which is specifically designed to provide exceptional acoustic insulation performance. The Glasswool blanket is flexible enough to wrap around angles and small radii enabling it to maintain exceptional compressive strength whilst maintaining its thickness.

### Application

Ductwrap is a flexible insulation blanket designed for external lagging of sheetmetal ductwork in the heating ventilation and cooling (HVAC) segment. Typically suited for use as external insulation for air-conditioning ductwork. Available in a range of thicknesses that are well suited to the following sectors:

- Retail
- Health
- Hospitality
- Multi-residential high rise
- Commercial office spaces

### Product limitations of use:

- Modifications not permissible, as suitability and/or compliance may be compromised
- Not to be used/exposed to weather in any condition including prior, during and after installation.
- This product is not designed for use as a wall wrap or roof sarking.
- Unfaced Glasswool is not a water or vapour barrier, cannot be used where a water or vapour control is required.
- This product does not have a group number in accordance with AS 5637.1 and is not suitable as an exposed internal wall or ceiling lining.
- This product does not meet the fusion temperature and non-combustibility requirements of AS 1668.1 Clause 2.3.2.
- The foil facing product should not come into contact with wet concrete, or alkaline materials.

### Features and benefits

| | |
|---|---|
| Available in a range of thicknesses | To meet the performance requirements as set out by the NCC. |
| Lightweight | Easy to handle and makes easy to form the shape of the duct being insulated. |
| Offers acoustic sound absorption properties | Greatly reduces fan noise within the duct. |

## Product data

| Facing type | Material R-value m2K/W | Thickness mm | Width mm | Length mm | Density kg/m³ | Pack weight kg | Coverage m² per roll |
|---|---|---|---|---|---|---|---|
| Sisalation® Heavy Duty Facing Foil (1200mm wide to cover the width of the insulation blanket). | R0.7 | 25 | 1200 | 15 | 22 | 9.9 | 18 |
| | R0.7 | 25 | 1500 | 15 | 22 | 12.37 | 22.5 |
| | R1.1 | 38 | 1200 | 15 | 22 | 15.04 | 18 |
| | R1.1 | 38 | 1200 | 10 | 22 | 10.03 | 12 |
| | R1.1 | 38 | 1500 | 15 | 22 | 18.81 | 22.5 |
| | R1.2 | 41 | 1200 | 10 | 22 | 10.82 | 12 |
| | R1.2 | 41 | 1200 | 18 | 22 | 19.48 | 21.6 |
| | R1.5 | 50 | 1200 | 10 | 22 | 13.2 | 12 |
| | R1.5 | 50 | 1200 | 15 | 22 | 19.8 | 18 |
| | R1.5 | 50 | 1500 | 12 | 22 | 19.8 | 18 |
| | R2.0 | 75 | 1200 | 7.5 | 22 | 14.85 | 9 |
| | R2.0 | 75 | 1500 | 7.5 | 22 | 18.56 | 11.25 |

## Physical Properties

| Property | Test Method/Standard | Result | Unit |
|---|---|---|---|
| Nominal density | ASTM C167 | 22 | kg/m³ |
| Thermal resistance @ 23°C | AS/NZS 4859.1 | Complies | m²K/W |
| Maximum service temperature | ASTM C411/C447 | Glasswool: 300<br>Facing Materials: 70 | °C |
| Fungi resistance of insulation materials | ASTM C1338-14 | Pass (no growth) | |
| Moisture absorption | When exposed to environmental conditions of 50°C and 95% relative humidity for four days | <0.2 | % by volume |

## Fire hazard properties

FI22 Ductwrap exhibits the following characteristics when tested in accordance with the following standards:

| Property | Test Method/ Standard | Result |
|---|---|---|
| Early Fire Hazard Indices | AS/NZS 1530.3 | |
| Ignitability Index | | 0 |
| Spread of Flame Index | | 0 |
| Heat Evolved Index | | 0 |
| Smoke Developed Index | | 2 |
| Burn Test | UL181.11 | FI22 Ductwrap Insulation has undergone testing to provide an indication of how it will perform individually when tested to UL 181 Burn Test, this testing is indicative only.<br>AS 4254.1 and AS 4254.2 requires specific testing on the final assembled duct system for compliance. |

## Acoustic performance

### Sound absorption

The performance of sound absorption for insulation is described by the Noise Reduction Coefficient (NRC) or Weighted Sound Absorption Coefficient. In sound absorption applications, the NRC is used as an acoustic performance measure. The higher the NRC, the greater the sound absorption at the representative frequencies. The NRC is the calculated average result of four frequencies: 250 Hz, 500 Hz, 1,000 Hz and 2,000 Hz. Ductwrap achieves the following sound absorption coefficients when tested in accordance with AS ISO 354–2006:

| Product | Thick-ness mm | Sound absorption coefficients at frequencies (Hz) of: | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 100 | 125 | 250 | 500 | 1000 | 2000 | 3150 | 4000 | 5000 | NRC | αw |
| FI22 Ductwrap faced with Sisalation® Heavy Duty Facing Foil | 50 | 0.33 | 0.34 | 1.02 | 1.06 | 0.65 | 0.37 | 0.25 | 0.17 | 0.14 | 0.80 | 0.35 (LM) |

## Health and safety

General Purpose is manufactured from FBS-1 Glasswool Bio-Soluble Insulation. Refer to Baron Glasswool SUIS for more information.

## Maintenance and conditions of use

- For installation please refer to AS4254.2 for installation requirement for air handling ductwork.
- Product must be kept dry at all times, not to be exposed to weather in any condition including prior, during and after installation.
- Foil facing should not be in contact with any corrosive environments, water or alkaline materials such as wet concrete etc
- Use of pressure cleaners or mineral based cleaners must not be used on the facing product.
- If product is compressed it will reduce the thermal performance of the product, ensure product recovers to nominal thickness where allowable to claim declared material R-value.
- Where insulation can be inspected, ensure any tears in the facing are repaired with appropriate tape as highlighted in the AS4254.2 for installation requirement for air handling ductwork.

## Technical Specification

When specifying, state the following:

The insulation material shall be Baron Glasswool Duct Wrap 22kg with a nominal thickness of _____ mm faced with _____

(specify nominal thickness) (insert facing type)

and with a Material R-value of R _____ $m^2$ K/W (specify Material R-value).

The following performance attributes must be specified:

- Product must be FBS-1 Biosoluble.
- Product must recover to the requirements of AS/NZS 4859.1.
- Where sound performance is required for the project, Sound Absorption level shall be _____.