

# Semi Rigid Duct Regaduct Acoustic DCF

- High sound absorption
- Excellent thermal insulation
- Bendable down to 1D x throat radius
- Size range 63mm to 500mm
- Lengths up to 5 metres
- Light weight and self supporting for ease of installation



## Regaduct Acoustic

A perforated bendable aluminium duct covered with an external layer of mineral wool, offering a high level of both thermal and acoustic insulation.

Regaduct Acoustic is ideal for both large and small installations. In large duct systems short lengths of acoustic duct are used to prevent cross talk between offices and to prevent plant noise from entering the occupied zones.

In smaller installations, such as school rooms or offices complete systems can be installed with this material. Its semi-rigid characteristics allow complete systems to be installed in the acoustic duct. Its "stayput" ability ensures straight air paths that will not sag between supports whilst its bendability allows bends and offsets around obstructions.

## Inner Tube

Laminated aluminium corrugated semi-rigid tube with a perforation area of 25%..

## Insulation

Acoustic density mineral wool in thicknesses of 25mm, 50mm or 75mm faced with woven glass fibre - which prevents erosion of the insulation material in high velocity applications keeping fibres out of the air stream.

## Outer Casings

Standard: Fibre glass scrim reinforced aluminium faced polyester seamless sleeve acting as both vapour barrier and air retaining tube. Aluminium/polyester has a fire resistance of Class 1 to BS476 Part 7 (Nil spread of flame). Alternatively aluminium corrugated bendable tube for higher strength and reduced noise breakout. Corrugated aluminium has a fire resistance of 15 minutes to BS476 Part 8. For cut to length units fitted with end caps providing male spigot connections use Regatenuator sound absorbers.

## Construction

Regaduct Acoustic is supplied in standard 3 metre lengths. Special cut lengths are available from 500mm up to 5 metres.

## Acoustic Performance

Full acoustic data is available for Regaduct Acoustic with information for each diameter by insulation thickness and lengths from 500mm to 2000mm in 250mm increments.

See separate acoustic data sheets.

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Rega Ventilation Limited

21/22 Eldon Way, Biggleswade, Beds SG18 8NH

fax: 01767 600487 email: sales@rega-uk.com

Call us on **01767 600499** or visit  
**www.regavent.co.uk**

## Jointing - Polyester Outer

As the external aluminium/polyester sleeve acts as the pressure sealing membrane for the tube it is essential that this is sealed to prevent air leakage. By using the Regafix wire duct clip the polyester sleeve may be clamped with the duct to give both mechanical strength and air tightness. The procedure is as follows:

- A: Fold back the polyester casing to 50mm beyond the point at which the tube is to be cut.
  - B: Cut and remove the 50mm exposed strip of mineral wool insulation leaving the aluminium inner bare.
  - C: Return the polyester to its original position so that it is flush with the end of the aluminium inner tube.
  - D: Open the Regafix clup to its fullest extent and slid the clip over both the polyester and aluminium tubes.
  - E: Slide the complete tube end assembly over the duct spigot and tighten the clip to seal the tube by clamping the polyester sleeve and aluminium tube securely to the spigot.
- For high pressure systems apply duct sealant to the spigot before making the joint.

## Jointing - Corrugated Outer

To achieve correct sealing of the acoustic tube with a metal corrugated outer it is necessary to use purpose made metal end caps terminating in male spigots to connect to ductwork. It is always preferable for these to be factory fitted and supplied to site as made to measure lengths of acoustic duct. If it is impossible to ascertain the required length prior to installation the end caps may be fitted on site following the instruction supplied with the product.

## Physical Data

| Diameter | 25mm Insulation         |                 | 50mm Insulation         |                 | 75mm Insulation         |                 |
|----------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|
|          | Bend Radius Centre Line | Weight per M/Kg | Bend Radius Centre Line | Weight per M/Kg | Bend Radius Centre Line | Weight per M/Kg |
| 100      | 1.5D                    | 0.63            | 2D                      | 0.75            | 3.5D                    | 1.24            |
| 125      | 1.5D                    | 0.76            | 2D                      | 0.83            | 3.5D                    | 1.32            |
| 150      | 1.5D                    | 0.89            | 2D                      | 0.91            | 3.5D                    | 1.40            |
| 160      | 1.5D                    | 0.94            | 2D                      | 0.94            | 3.5D                    | 1.44            |
| 200      | 2D                      | 1.15            | 3D                      | 1.08            | 4.5D                    | 1.57            |
| 224      | 2D                      | 1.27            | 3D                      | 1.16            | 4.5D                    | 1.65            |
| 250      | 3D                      | 1.41            | 4D                      | 1.24            | 4.5D                    | 1.73            |
| 300      | 3D                      | 1.67            | 4D                      | 1.41            | 5.5D                    | 1.90            |
| 305      | 3D                      | 1.69            | 4D                      | 1.43            | 5.5D                    | 1.92            |
| 355      | 3D                      | 1.95            | 4D                      | 1.59            | 5.5D                    | 2.08            |
| 400      | 4D                      | 2.19            | 5D                      | 1.74            | 6.5D                    | 2.23            |
| 450      | 4D                      | 2.45            | 5D                      | 1.91            | 6.5D                    | 2.40            |
| 500      | 4D                      | 2.71            | 5D                      | 2.07            | 6.5D                    | 2.56            |

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