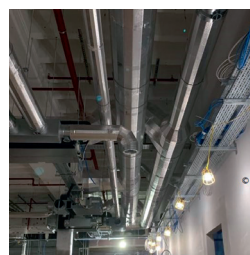


# Innovative, high performance, non-metallic, pre-insulated ductwork systems

– that save energy, cut costs, reduce environmental impact and deliver clean, uncontaminated air



## EcoDuct is widely regarded to be the most sustainable and cost effective HVAC ductwork system in the world.

We are the only manufacturer of phenolic pre-insulated ductwork that comes in all shapes, sizes and colours and is suitable for indoor and outdoor applications – from large public, commercial and industrial to small scale residential – for new build, refurbishment and use in services modules.

**Our products are fully tested and certified and three simple examples illustrate the unrivalled environmental credentials.**

**1.** EcoDuct can reduce the embodied energy (CO<sub>2</sub> emissions) of an HVAC system – a major cost component of every building, by up to 75% – an important part of the journey to net zero carbon.

**2.** EcoDuct can reduce the energy consumption of an HVAC system by up to 45%. This represents 24% to 30% of the 30 year life-cycle costs of a property, so the potential savings are significant.

**3.** With offsite prefabrication of the pre-insulated ductwork, use of EcoDuct reduces waste on site to close to zero and our buy-back scheme optimises cradle-to-cradle circularity – recover re-use, recycle.

In an industry in which rigorous new standards and higher consumer demands are emerging, EcoDuct offers unrivalled energy efficiency, environmental and sustainability credentials. Innovative design delivers meaningful energy savings and a reduction of the carbon footprint (CO<sub>2</sub>) in every building in which it is installed. Fully compatible with the major international building assessment programs – BREEAM, LEED, the international WELL standard and NABERS Design for Performance.

**In summary, EcoDuct transforms ductwork from a concealed component into a design asset, giving unparalleled design flexibility alongside unprecedented environmental benefits, sustainability, energy efficiency, performance and longevity with meaningful cost and time savings.**



CUTS CO<sub>2</sub>



SAVES ENERGY



GREATER CIRCULARITY



FULL FLEXIBILITY



CLEANER AIR



SAVES COST



SAVES WEIGHT



SAVES SPACE



ULTRA AIRTIGHT



IMPROVED PERFORMANCE



OPTIMAL IEQ



SAVES TIME

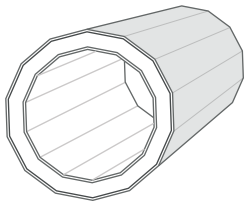


COMPLIANT

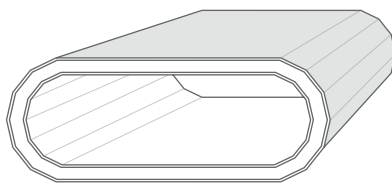
**Innovative, high performance, non-metallic, pre-insulated ductwork systems**  
that save energy, cut costs, reduce environmental impact and deliver clean, uncontaminated air

EcoDuct is the only pre-insulated ductwork system that offers all shapes and sizes, including circular, flat oval and rectangular, as well as accessories such as FCU plenums and grille boxes.

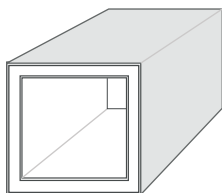
## CIRCULAR



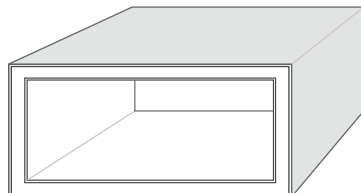
## FLAT OVAL



## SQUARE



## RECTANGULAR



## KEY FEATURES

- Up to 85% lighter than insulated metal ductwork
- Up to 70% savings in installation time – a single fit of ductwork, insulation and final cover
- Saves up to 45% of the energy costs of AC systems
- Saves up to 75% in the carbon footprint (CO2) embodied energy of the installation
- Smooth inner surface allows delivery of the cleanest possible air with reduced contamination from pathogens, including viruses and bacteria
- Offers best possible airflow performance and thermal efficiency with excellent fire and smoke performance and safety
- Enhanced air tightness and pressure resistant – Class D for air leakage at 2,500Pa
- Enhanced robustness and longevity at least equal to the life of the mechanical plant
- High closed cell content and corrosion resistance, so minimal degradation of thermal properties from moisture or use in hostile atmospheres
- Very cost competitive on installation with reduced whole-of-life cost
- Material is non-toxic and not on prohibited/red lists – LBC, REACH, etc
- Can be supplied in any shape, size, colour or effect, giving complete design flexibility

## Technical Specifications - Phenolic Insulation

PARAMETERS	DETAILS AND COMPLIANCE
Air Leakage and Pressure Testing	Class D at 2,500 Pa (DW144: B&ESA – 2016 (with DW143 - Ductwork Air Leakage Testing))
Reaction to fire	Euroclass B, s2-d0 (BS EN 13501-1), Class 0 (BS476-6)
Flame Spread (FSI) and Smoke Developed (SDI)	FSI of less than 25 and SDI of less than 50 (ASTM E 84/ UL 723)
UL Listing	Listed as Class 1 to Standard for Safety UL181; UL 181 Burn Test (optional)
Density	55 – 60 kg/m <sup>3</sup>
Compressive Strength	200 kPa (EN 826)
Temperature range	From - 20° C to +80° C
Specific thermal (heat) capacity	1470 J/kgK (ref.CIBSE Guide A)
Coefficient of thermal conductivity	0.022W/m.K at 10-19° C (BS EN 12665)
Closed cell content	Minimum 90% (ISO 4590)
Melting point	N/A to thermoset insulation (chars when exposed to extreme heat)
Material Base	Phenolic – rigid foam from phenolic resin
Ozone Depletion Potential (ODP)	Zero ODP
Global Warming Potential (GWP)	Low GWP
VOC Content/Emissions	0.0054 mg/m <sup>2</sup> after 28 days (TVOC, Eurofins Product Testing, Test Chamber per ISO 16000-9)
CFC/HCFC/HFC Content	Zero
Material Safety/Asbestos/Chlorine	Phenolic has no Red List materials; REACH compliant
CE Certificate of Conformity	EN 14314; see Declaration of Performance (CE Mark - European Construction Products Regulations)
Ductwork and Building Standards	BS EN 14314:2015; see Declaration of Performance (CE mark-European construction products regulations) BS EN13403:2003 Building non-metallic ducts. Ductwork made from installation duct boards BS 9999:2017- Code of Practice for Fire Safety. BS 5970:2012 – Thermal Insulation of Ductwork BS 5422:2023 – Thermal Insulation Standards Approved Document B:2022 – Fire Safety in Buildings Approved Document L: 2021/23 – Conservation of Fuel and Power

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