

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 UK 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 certified and three simple examples illustrate the unrivalled environmental credentials.

1. EcoDuct reduces the embodied energy (CO₂ 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 reduces the energy consumption of an HVAC system by up to 45%. This represents 24% - 30% of the 30-year

life-cycle costs of a property (source AECOM), so the potential savings are significant.

3. With offsite prefabrication of the pre-insulated ductwork, the 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. Our innovative design delivers meaningful energy savings and a reduction of the carbon footprint (CO₂) in every building in which it is installed. EcoDuct is fully compliant with the major international building assessment programmes – BREEAM, LEED, The International WELL Standard and NABERS Design for Performance.

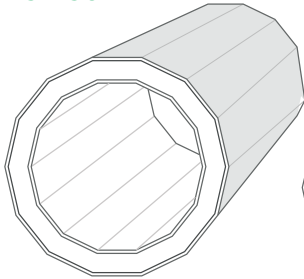
In summary, EcoDuct transforms ductwork from a concealed component into a design asset, giving unparalleled design flexibility alongside unprecedented environmental benefits, sustainability, energy efficiency, performance and longevity with meaningful cost and time savings.



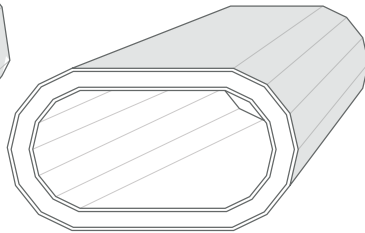
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EcoDuct is the only pre-insulated phenolic ductwork system that offers all shapes and sizes, including circular, flat oval, square, rectangular and even triangular, as well as accessories such as FCU plenums and grille boxes.

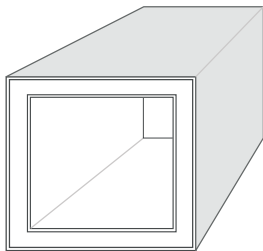
CIRCULAR



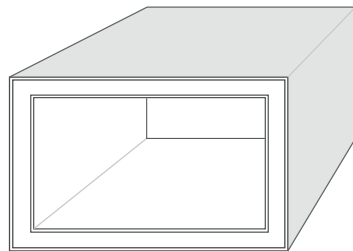
FLAT OVAL



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
- Enhanced air tightness and pressure resistant – Class D at 2,500Pa
- Excellent fire and smoke performance and safety
- 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
- Can be used with all standard ductwork accessories including plenums, grille boxes, attenuators, connectors, acoustic liners and dampers
- 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) (previously 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 |
| Density | 55 – 60 kg/m ³ |
| 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 & thickness | 0.022W/m.K at 10-19° C (BS EN 12665); 0.018W/m.k at 10° c (ASTM C-518) |
| 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 ² after 28 days (TVOC, Eurofins Product Testing, Test Chamber per ISO 16000-9) |
| CFC/HCFC/HFC Content | Zero |
| Asbestos/Formaldehyde/Chlorine Content | Zero |
| CE Certificate of Conformity | BS EN 14314:2015; see Declaration of Performance (CE Mark - European Construction Products Regulations) |
| Ductwork and Building Standards | BS EN 13403:2003 Ventilation for building non-metallic ducts. Ductwork made from insulation ductboards BS 9999:2017 – Code of Practice for Fire Safety BS 5970:2012 – Thermal Insulation of Ductwork BS 5422: 2009 – Thermal Insulation Standards Approved Document B: 2022 – Fire Safety in Buildings |

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