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TECHNICAL DATA SHEET DUCTGUARD | HVAC

Ecowool[®] Classic DuctGuard

Ecowool® Classic DuctGuard blanket external duct wrap, the new generation glass mineral wool insulation manufactured by PGF Insulation provides traditional sheet metal ducts with improved thermal insulation. The external glass mineral wool duct wrap has been engineered to provide the highest level of insulation performance for building occupants to experience the optimum level of indoor comfort deserved.

Ecowool[®] Classic DuctGuard blanket external duct wrap is pre-laminated with a vapour barrier facing material.

APPLICATION

Recommended as a thermal insulation for the exterior of HVAC systems or other spaces or surfaces where temperature control is required. Ecowool® Classic DuctGuard blanket external duct wrap meets typical industry standards for core and tensile strength, which makes the product more resistant to damage during installation. The flexible and light weight features allow the insulation to conform easily around corners and curved surfaces and can be readily cut with die presses or with a knife.

Ecowool[®] Classic DuctGuard blanket external duct wrap reduces heat loss or gain through duct walls, conserving energy and controlling moisture condensation.

FEATURES AND BENEFITS

Fast installation. Ecowool[®] Classic DuctGuard comes with laminated vapour barrier, it saves installation time by up to 50% compared to conventional method of installation glass wool insulation which is layer by layer wrap over the metal duct sheet.

Better fibre network. Fine, longer and evenly distributed fibre network helps in creating better tensile strength allowing the insulation to demonstrate superior durability, fiexibility that feels much softer.

Exceptional vapour retarder. Faced with factory laminated facing material offers low permeance properties which allows excellent long-term vapour sealing. A properly installed glass mineral wool insulation with vapour barrier facing will help to minimize concerns with concealed condensation.

Optimal fibre diameter. Optimal fibre diameter produces more air chamber which enables the insulation to provide a better and enhanced performance.

Less dusty and less itchy. Specifically engineered to produce a comfortable and less dusty insulation. The insulation creates a pleasant work experience by reducing the tingling feeling during installation.

Exceptional sound-absorbing properties. Ecowool[®] Classic DuctGuard blanket external duct wrap reduces the transmission of HVAC noises such as air turbulence, popping and cracking.

Maximum service temperature. Maximum service temperature of 450°C for glass mineral wool only. Tested in accordance with ASTM C411-11 & ASTM C447-10.



Low water vapour absorption. Absorbs <0.02% by volume. Tested in accordance with ASTM C1104.

Zero-odour emission. Does not emit any unpleasant odour. Tested in accordance with ASTM C1304.

Non-corrosive. Chemically inert. Will not cause or accelerate corrosion of steel, stainless steel, copper or aluminum due to its specifically inorganic and mineral composition. Tested in accordance with ASTM C665-12.

Mould-free. Does not encourage growth of mould, fungus or bacteria. Tested in accordance with ASTM C1338-08.

Sustainable product. Ecowool[®] Classic DuctGuard blanket is free from CFCs, HCFCs and any material with ozone depletion potential (ODP) in their manufacture/composition content, which are harmless to the environment. ECOWOOL[®] Classic

DuctGuard blanket is compliant with most green rating tools including ODP emission credit requirements. Air quality is unaffected with total volatile organic compound (VOC) emissions below quantifiable levels.



Made from nearly 80% recycled glass and locally sourced raw materials, the wall batts are perfectly in tune with sustainability and environmental concerns.

CERTIFICATIONS

MS1020:2010 certified. Ecowool® Classic DuctGuard blanket external duct wrap is MS1020:2010 certified. The certification is accredited by SIRIM QAS.

CIDB COA compliant. Ecowool® Classic blanket is CIDB COA complaint according to Section VIIA CIDB Act (2011 Amendment). Please contact PGF Insulation representative for further information.



PERFORMANCE

Fire safety properties. Inherently non-combustible and doesn't fuel fire or propagate flames. Tested in accordance with:

- B.S. 476: Part 4 (glass mineral wool only)
- B.S. 476: Part 6 Fire propagation
- B.S. 476: Part 7 Surface spread of flame
- ASTM E84-15b Surface Burning Characteristics

Assured thermal performance. Greatly reduces heat gains or losses through the duct walls so that energy costs are reduced and conditioned air reaches the outlet at the required temperature. Tested in accordance with ASTM C518 at 20°C mean temperature

Enhanced comfort control. By reducing heat loss or gain through duct walls, conditioned air reaches occupied spaces at temperatures close to design conditions. Central air equipment may therefore be operated at reduced levels, saving energy.

Acoustical performance. Commercial Heating, Ventilation and Air Conditioning (HVAC) systems are typically driven by large central motors that push conditioned air to each room of a building through a complex network of metal ducts. The insulation reduces noise from the HVAC motors travelling though the ducts into the rooms while its thermal performance helps maintain a consistent air temperature throughout the long network of ducts.

When installed Condensation control. thickness recommendations are followed, Ecowool® Classic DuctGuard blanket reduces the likelihood of condensation occurring on the vapor retarder facing, and of moisture damage to ceilings and other interior finishes.

STORAGE AND TRANSPORT

To optimize the performance of the Ecowool Classic DuctGuard blanket, store it indoors, under cover, and in dry conditions. Handle the product with care to prevent damage from sharp objects or heavy impact.

TYPICAL PHYSICAL PROPERTIES

Physical Properties	Test Method	Value (English)	Value (Metric)
Water Vapour Permeance	ASTM E96, Procedure A	0.02 perm	1.15 ng/N.s
Tensile Strength - MD	ASTM D828	45 lbs/ln	8 kN/m
Tensile Strength - XD	ASTM D828	25 lbs/ln	4.4 kN/m
Burst Strength	ASTM D774	75.4 psi	52 N/cm²

PRODUCT AVAILABILITY

Ecowool® Classic DuctGuard blanket external duct wrap are supplied in two conventional thickness for standard sheet metal ducts to reduce the likelihood of condensation occurring. The following range of Ecowool® Classic DuctGuard blanket external duct wrap is available.

Туре	Density (kg/m³)	K-Value (W/m K)	R-Value (m²K/W)	Thickness (mm)	Width (m)	Length (m)	
EWBL 0.75	32	0.0327	0.75	25	1.2	15	
EWBL 1.50	32	0.0327	1.50	50	1.2	7.5	

SHORT FORM SPECIFICATION

All ducts are to be insulated on the external GI surface with Ecowool® Classic DuctGuard, glass mineral wool factory laminated with a vapour barrier facing. All glass wool insulation shown on drawings or specified herein shall be Ecowool® Classic _ with thickness of * DuctGuard EWBL* ____ mm. Thermal conductivity K-Value of the insulation shall be K 0.0327 W/mK. It shall be MS1020:2010 certified and CIDB COA compliant according to Section VIIA CIDB Act (2011 Amendment). It will be manufactured by PGF Insulation and shall be installed in accordance with the instructions issued by manufacturer.

WARRANTY

This product is covered by a 10 years product warranty.

For Unfaced or Plain Product only.

For full details, please ao to www.ecowool.com.mv

* Terms & conditions apply.



Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of the glass mineral wool insulation listed herein represent typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. The suitability of the product is not binding for special individual cases. Warranty and liability upon delivery shall be in accordance with our General Terms and Conditions. No responsibility is assumed for the correctness of this information.



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