

What's happening?

Best Practice on TLP KO2

OZONE DEPLETING PRODUCTS INVESTIGATION

Overview:

Siemens Rail Automation (SRA) undertook an investigation into ozone depleting substances purchased for TLP KO2. Two substances with ozone depleting potential are being used by SRA for the project: insulation material for Relocatable Equipment Buildings (REBs) and refrigerant for HVAC systems (also for REBs).

Earthwool DriTherm Cavity Slabs:

Knauf Insulation supplies REB insulation material (Earthwool DriTherm Cavity Slabs) which are manufactured in accordance with BS EN 13162:2008, EN 16001:2009 Energy Management Systems, and are free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content. The manufacturing process has a low impact on the environment and is classified as Zero ODP and Zero GWP. The specification guide can be found on the following page.

Ecotel HVAC units:

Airedale manufacture HVAC units for REBs. The unit range is branded 'Ecotel' and uses R407C refrigerant gas. R407C is an HFC blend designed to have similar properties to R22 in air conditioning systems. It has an ozone depletion potential of zero and a global warming potential of 1,774.

SRA are working with Airedale to replace the R407C with a new refrigerant (R410a) which has an ozone depletion of 0 and GWP of 1,725

Benefits:

- Switch HVAC refrigerant gas to one with a better Global Warming Potential

Meeting our Objectives & Targets:

- This initiative is aligned with TLP Sustainability Strategy Objective 17c 'Not use insulation and other materials containing substances known to contribute to stratospheric ozone depletion and global warming'.



Figure 1. Airedale EcoTel HVAC unit



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Earthwool® DriTherm Cavity Slabs

For masonry cavity walls

Description

Earthwool DriTherm Cavity Slabs are semi-rigid or rigid slabs of non-combustible, water repellent, glass mineral wool. They are 455mm wide to suit standard vertical wall tie spacings, ensuring a closed joint with adjacent slabs.

Application

Earthwool DriTherm Cavity Slabs are for the thermal insulation of masonry cavity external walls, either partially filling or fully filling the cavity. They are approved for use in buildings up to 12m high in any exposure zone and for use in multi-storey applications up to 25m in height.

Standards

Earthwool DriTherm Cavity Slabs are manufactured in accordance with BS EN 13162:2008, EN 16001:2009 Energy Management Systems, OHSAS 18001:2007 Occupational Health and Safety Management Systems, ISO 14001:2004 Environmental Management Systems, and ISO 9001:2008 Quality Management Systems, as certified by Bureau Veritas.



Performance

Thermal

Earthwool DriTherm Cavity Slabs have thermal conductivities ranging from 0.032 to 0.037 W/mK.

Fire

Earthwool DriTherm Cavity Slabs are classified as Euroclass A1 to BS EN ISO 13501-1.

Benefits

- British Board of Agrément approved for use in all exposure zones
- Excellent thermal and fire performance
- Water repellent
- Slabs 'knit' together, thus eliminating air gaps between adjacent slabs

* Available by application to Knauf Insulation.



More Power with Compliance



Earthwool® DriTherm Cavity Slabs

Guarantee

Earthwool DriTherm Cavity Slabs are guaranteed* for 50 years to resist the transmission of liquid water from the outer masonry leaf to the inner masonry leaf in new external cavity walls and to have a thermal conductivity of 0.032 to 0.037 W/mK at normal building temperatures.

Durability

Earthwool DriTherm Cavity Slabs are odourless, rot proof, non-hygroscopic, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Certification

Earthwool DriTherm Cavity Slabs are certified by British Board of Agrément Certificate 95/3212. Approval can be sought from Knauf Insulation Ltd and the British Board of Agrément for Earthwool DriTherm Cavity Slab's use in buildings over 25m high.

Environmental

Earthwool DriTherm Cavity Slabs are free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content and represent no known threat to the environment. **Earthwool DriTherm Cavity Slab's manufacture has a low impact on the environment and is classified as Zero ODP and Zero GWP.**

Vapour resistance - resistivity

Earthwool DriTherm Cavity Slabs offer negligible resistance to the passage of water vapour and have a vapour resistivity of 7.00MNz/g.m.

Moisture resistance

Tests by the British Board of Agrément confirm that Earthwool DriTherm Cavity Slabs will not transmit water to the inner leaf. Nor will they transmit moisture by capillary action across the cavity or from below DPC level.

Handling and storage

Earthwool DriTherm Cavity Slabs are easy to handle and install, being lightweight and easily cut to size, where necessary. They are supplied in polythene packs which are designed for short term protection only. For longer term protection on site, the product should either be stored indoors, or under cover and off the ground. Installation instructions are on every pack. Earthwool DriTherm Cavity Slabs should not be left permanently exposed to the elements.

Knauf Insulation mineral wool products with ECOSE® Technology benefit from a formaldehyde-free binder made from rapidly renewable bio-based materials instead of petroleum-based chemicals which is up to 70% less energy intensive. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE® Technology contain no dye or artificial colours – the colour is completely natural.

For more information please visit
www.knaufinsulation.co.uk