The all-new A1 non-combustible radiant barrier offers a System Thermal Resistance of 1.91m2.K/W

Alubrite Radiant Barrier the latest product in the ATI range, achieved an A/A1/1 fire rating as per SANS 428, making it their latest non-combustible insulation product. It consists of aluminium foil on both sides, with a reinforced scrim in the middle, laminated with a flame-retardant adhesive.

Their A class fire rating makes Alubrite suitable for all building classifications, as per SANS 10400-T Fire Protection. Most importantly this includes building occupancies where only non-combustible materials are allowed, such as hospitals, place of detention, institutional buildings, hotels, dormitories, entertainment and public assembly.

It also fulfils requirements for non-combustible insulation in high-risk factories and warehouses, where this is mostly an insurance requirement.

Improved insulation

As energy costs rise, building owners look at ways to effectively reduce the energy usage in buildings and comply to the SANS 10400XA regulations. A critical area to reduce building energy usage is to incorporate better insulating systems. Buildings require a substantial amount of energy to heat and cool interior spaces – and the costs of this are directly related to how much heat is gained or lost through a building's exterior. This loss or gain through roofs alone accounts for 20-30% of the total heat transfer through the building envelope.

Managing radiant heat

In warm climatic conditions, radiant heat is transmitted from the sun through the atmosphere to the outside surface of the roofing material, which is heated due to absorption of the radiant energy. Heat is then transmitted via conduction to the underside of the roof sheeting. Without a radiant barrier, it is re-emitted from the sheeting surface through the attic air space to the attic floor below, making it very uncomfortable inside the building. Alubrite can greatly assist in solving this problem.

Heat energy transference

Another important factor, is heat transference: if heat energy is not transferred to the attic space via radiation, it could be:

- Radiated back to the outside from the roof surface by the radiant barrier.
- Transferred to the outside air via conduction.
- Transferred to the attic air via conduction.

In accordance with SANS 10400-XA:2021 energy usage in buildings, all tiled roofs in energy zones 1, 2, 4, 6 and 7 must have a tile underlay or radiant barrier installed in accordance with the manufacturer's installation specifications.

This makes Alubrite an ideal choice as a radiant barrier with a 1.91 system R-Value and A1 fire rating to be installed under tiles / sheeting and will give you the fire safety needed to install an additional thinner A1 or B1 bulk product on the ceiling or B1 board product as a ceiling.

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