

SarnaTherm Phenolic (PF)

The SarnaTherm PF range of rigid thermal insulants are CFC free closed cell rigid phenolic insulants manufactured by Kingspan Insulation Ltd, in a polymerisation reaction caused by incorporating a low thermal conductivity-blowing agent with phenolic resin. Manufactured to BS EN 13166 "Thermal Insulation products for buildings - factory made rigid phenolic foam (PF)", the resulting chemical reaction causes the phenolic foam to rise between two facings to which it autohesively bonds producing a finished product when cooled.



SarnaTherm PF is manufactured using one of two upper facings to produce insulants for specific applications. The mineral tissue faced SarnaTherm GK is Factory Mutual approved for use in adhered applications and can be mechanically fastened. The foil faced SarnaTherm SK is Factory Mutual approved for use in mechanically fastened applications and can be used in warm ballasted and SarnaVert green roofing systems.

Specification

- Low thermal conductivity - 0.022 W/mK (Lambda 90/90).
- Class O fire rating to the Building Regulations.
- <5% smoke emission when tested to BS 5111: Part 1.
- CFC/HCFC-free.
- Zero ODP (Ozone Depletion Potential).
- Typical Density of 58 - 60 kg/m³.
- Compressive strength 175 kPa at 10% yield.
- Provides reliable long term thermal performance over the lifetime of the building.



Attachment to Substrate

When using SarnaTherm PF, a vapour control layer will always be required over profiled metal decking. Stainless steel fasteners, for fastening the insulation and Sarnafil membrane, will be required in all new constructions with an internal relative humidity greater than 65% and in most refurbishment situations.

SarnaTherm GK and SK can be attached to the substrate (deck or suitable vapour control layer) by mechanically fastening with SBT tubes and SBIW-70x70 pressure plates, or by bonding in Sarnacol 2162 cold bonding adhesive. SarnaTherm SK can be loose laid if sufficient ballast weight is provided to resist wind uplift pressures.