



Thermoflexsystem

THERMOFLEX APPLICATION SHEET NO. 1 WATERPROOFING OF CONCRETE ROOF DECKS

Discussion

Concrete roof decks normally consist of a slab screeded to a fall with a sand cement mixture. In the case of a new structure, a minimum of 2 rain free weeks drying period is required before waterproofing. In the case of an old roof, existing waterproofing should be removed and a drying period consistent with the amount of water absorbed allowed. As this is often difficult to estimate it is suggested that either our technical department is consulted or vent pipes (10 sq. m of roof area) are provided to prevent bubbling due to trapped water vapour.

Surface Preparation

All forms of surface contamination must be removed to ensure a clean smooth surface free of any loose material, or any other barrier to adhesion. Cracks or voids must be filled using HYPERCRETE (modified cementitious material) and allowed to cure for a least 24 hours. Should the parapets be rough a HYPERCRETE slurry should be applied to the area to receive the flashing. Fullbore covers should be removed to facilitate "dressing in" the waterproofing. It is recommended that the fullbores be checked to ensure they are functioning correctly.

Finally, an assessment should be made, as to what extent if any ponding is likely to occur. Standing water present, in excess of 5 mm is considered excessive. All low areas should be levelled with a topping of HYPERCRETE. Waterproofing over expansion joints should be laid on top of a PVC slip-sheet once the joint has been sealed. Under no circumstances should the waterproofing be laid directly over the expansion joint.

Application

Apply a thin uniform coating of THERMOFLEX PRIMER by means of a paint roller to the entire area including the parapets. Coverage will depend on the porosity of the substrate, but 6 sqm/ L of primer should be obtained. Allow a drying period of 3 hours. Lay up the entire roof area allowing 75 mm overlap on side joints 100 mm on end joints and at least 200 mm for turn-ups at the parapets. Joints can now be torched together and all edges sealed with a heated trowel.

Flashings

It is recommended that the THERMOFLEX be turned up the parapets 150mm. A DARAFLEX flashing strip of 300mm should overlap the turn-up in such a manner that 100mm of its width be on the horizontal plane and 200mm on the vertical. (See DARAFLEX data sheet)

Finish coat

A choice of REFLECT (Bitumenous Aluminium Paint) which is highly reflective or DARACRYL Acrylic (available in colours) must be applied. If the acrylic topcoat is chosen, a pastel shade is recommended to improve reflection and reduce surface temperature.

Application

Before applying REFLECT ensure that the product has been well stirred. The product should be applied with a paint roller at an application rate of 5 sqm/L. NOTE: The paint should be stirred at regular intervals to ensure a consistent appearance. The coating must not be applied under wet conditions or to a moist surface. REFLECT is a solvent based material, is highly flammable and should only be applied in a well ventilated area.

When applying DARACRYL to a very hot THERMOFLEX surface a mixture of one third paint to two thirds water should first be applied as a primer coat. Allow 30 minutes drying time before applying DARACRYL with a paint roller, at an application rate of 3sqm/L. DARACRYL only develops full water resistance after a few days. It is therefore essential that it is not exposed to excessive ponding during this period.

Maintenance

This system is recommended for occasional light foot traffic. The products life expectancy can be significantly improved by re-coating the roof every 2-3 years.