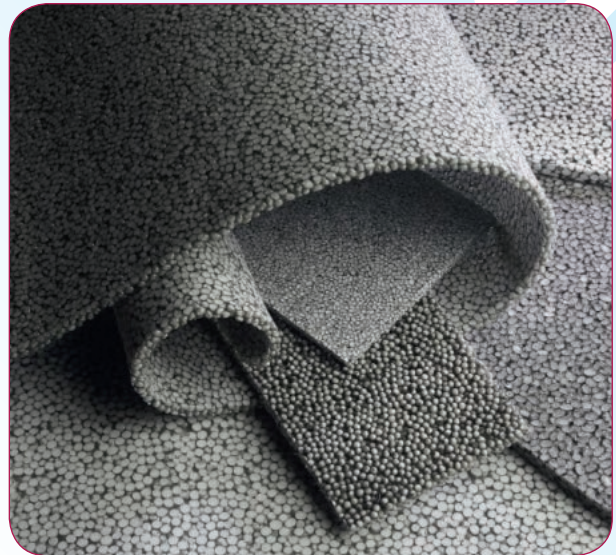


PERMALAYER

Anti-Fracture Underlay for Tiles

-  **Timber/metal floors & areas with limited movement**
-  **Green screeds & concrete**
-  **Fracture resistant up to 3mm**
-  **Underfloor heating**
-  **Waterproof when used with Norcross Waterproofing Admixture**
-  **1.8mm thick**
-  **2 Roll Sizes: 0.5m x 8m (approx. 4m²)**
1.2m x 16.5m (approx. 20m²)



Designed for use beneath ceramic, porcelain, natural stone and mosaic tiles in areas where limited movement stresses are anticipated such as timber and metal surfaces and green concretes and screeds. The unique Permalayer system enables fractures up to 3mm wide to be bridged without affecting the tiled finish. When used correctly it eliminates the requirement for costly floor build-ups such as plywood overlays. The layer enables the substrate beneath to move laterally, protecting the tiled finish from the detrimental effects of subfloor movement. Permalayer provides a flat surface to tile directly onto meaning that it is easy to achieve a solid bed of adhesive beneath the tiles eliminating problems associated with point loading as well as making it suitable to receive mosaics without the need to level the floor first. Independent testing of Permalayer performed by Lucideon showed that the product protected tiles and grout joints from drying shrinkage in concretes and screeds only 48 hours old. Their trials performed on chipboard floors on joists at 600mm centres showed that when Permalayer was laid into a bed of Norcross Rapid Porcelain Grey adhesive, a mean failure load of 6.2 kN was achieved at a mean deflection of 16.3mm with only the tile directly under load cracking after the timber floor itself had failed. There were no signs of failure in the surrounding tiles and no cracking was noted in the adhesive bed. This exceeds the requirements of BS 6399 Loadings for Buildings Part 1, the code of practice for dead and imposed loads which states that the maximum load a floor must resist for domestic, office and shopping areas is 4.5 kN. A copy of the test report is available from Norcross Adhesives upon request.

Concrete/ Cement:Sand Screed	Yes	48 hours after laying
Anhydrite Screeds	Seal	Prime as overleaf
Existing Vinyl/ Flooring Grade Asphalt	Yes	
Existing Glazed Tiles	Yes	Slurry Bond Coat
Heated Floors	Yes	
Timber Floors	Yes	
Showers/Wet Rooms	Yes	Mix adhesive with Norcross Waterproofing Admixture to provide a tanked system & protect the underlying substrate

GENERAL SURFACE PREPARATION

All surfaces should be dry, clean and strong enough to support the tiles to be fixed. All traces of dirt, dust, laitance and other contaminants must be mechanically removed. Porous or dusty surfaces must be sealed using Norcross Prime Bond diluted 1:4 with water.

SURFACE PREPARATION

Concrete/ Power Floated Concrete	Must be a minimum of 48 hours old. Power Floated Concrete - brush apply a slurry bond coat consisting of 2 parts adhesive: 1 part Prime Bond & allow to dry.	Tongue & Groove Floorboards	Must be screw fixed to joists at maximum 300mm centres using countersunk screws. Additional noggings should be inserted where necessary. Board edges should be glued. Prime with a neat coat of Norcross Prime Bond and allow to dry before tiling.
Cement:Sand Screed	Must be a minimum 48 hours old.	Flooring Grade/ Water Resistant Chipboard	The boards must be screw fixed to joists at maximum 300mm centres using countersunk screws. Additional noggings should be inserted where necessary. N.B. Wax coated boards are not suitable to receive a tiled finish.
Anhydrite/ Hemihydrate (Gypsum) Screed	Dry in accordance with manufacturers recommendations. Mechanically remove all traces of laitance. Prime using progressively stronger coats of Norcross Prime Bond - 1:4 with water: 1:3 with water & if still absorbent 1:2 with water. Allow to dry between coats.	WBP/Marine Grade Plywood Minimum 15-18mm Thick	Must be sound & in good condition. Prime with undiluted Prime Bond & allow to dry.
Heated Floors	After tiling the heating should not be switched on for 14 days after which the temperature should be raised at a rate of 5°C per day to operating temperature. Undertile heating cables and mats should be encapsulated in a bed of a suitable Norcross Levelling Compound.	Floating Timber Floors	Tongue & groove boards should be glued together using a good quality wood glue. If the floor is considered to be sufficiently deflection-free, the floor will be suitable for direct tiling. If however there is a large amount of deflection in the floor, overlay with a 15-18mm plywood. It should be noted that in some instances, a floating timber floor may not be deemed suitable to receive a tiled finish, even when strengthened with plywood.
Vinyl Tiles/ Asphalt	Must be sound and in good condition. Prime with undiluted Prime Bond & allow to dry.	Metal	Must be in good condition, free from any rust or surface contamination and able to support the additional weight without excessive deflection. Some grades may require priming with a suitable rust inhibiting primer.
Existing Glazed Tiles	Must be well fixed and able to support the additional weight of tiling. Thoroughly clean and degrease & allow to dry before brush applying a slurry bonding coat consisting of 2 parts adhesive to 1 part Prime Bond. Allow to dry.		
Plywood Overlay on Existing Timber Floors (WBP/ Marine Grade)	Plywood must be minimum 15-18mm thick and be screwed to existing boards and joists with staggered joints at 300mm centres and 150mm centres along board edges. Seal back, face & edges with undiluted Prime Bond & allow to dry. All timber construction must be adequately ventilated behind to prevent warpage of boards.		

APPLICATION

Cut the Permalayer to the required size. Apply Norcross Rapid Porcelain Grey to the substrate using a thin bed notched wall trowel. Lay the Permalayer onto the adhesive bed, roll and press flat until the adhesive appears through the surface. Allow the adhesive to dry. Lay the tiles normally using Norcross Rapid Porcelain or Thick Bed Stone & Porcelain Adhesive. Joints between the tiles must be minimum 3mm wide. Allow the adhesive to dry prior to grouting using Norcross 4 into 1 or Norcross Flexible Wide Joint Grout. Permalayer does not eliminate the need for movement joints which should be incorporated in the tiled installation in accordance with BS 5385: Part 3. In wet areas such as shower and wet rooms, mix Norcross Rapid Porcelain Tile Adhesive with Norcross Waterproofing Admixture to give a tanked installation.

TECHNICAL ADVICE

For advice on tile installation products call the Technical Helpline on 01782 524140.

Further information may also be obtained from the Norcross 'How to' sheets available on the website.