

INDUSTRY: BUILDING SEGMENT
CONDITION: Constant forklift & hard plastic wheel trolley movement, some Impact.
TRAFFIC: HEAVY DUTY
BOQ

ITEM NO	DESCRIPTION OF THE ITEMS	UNIT
8.2	HOTELS - KITCHEN	
8.21	DRY PROCESS AREA	
8.22	Flow applied Cementitious Polyurethane floor topping at 4.0mm thick : Nitoflor SL 3000 UT	sqm
a.	<p>New concrete floors: The base should be a minimum of Grade RC30 of BS 8500-2: 2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa. The laitance and any surface sealer or curing membrane should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. For concrete bases in contact with the ground, a damp-proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of Practice For The Protection Of Buildings Against Water From The Ground).</p>	
b.	<p>Old concrete floors: All laitance and surface contamination should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum. Heavy oil or grease deposits should be removed either mechanically, or by steam cleaning, or by biological treatment, then by high pressure water blasting followed by the application of a penetrating primer. Where oil or grease contamination has been severe or of long duration, these methods may prove unsatisfactory and in these cases removal of the affected base is necessary. In existing buildings without a functioning damp-proof membrane, the application of a surface-applied membrane should be considered. Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided, e.g. by direct drainage. A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.</p>	
c.	<p>Scratch coating: Nitoflor SL3000 UT should be applied as a scratch coat at a coverage rate of up to a nominal 1 mm thickness actual coverage rate will depend on concrete surface texture and porosity. This scratch coat is designed to prime and seal the floor. Mix and spread evenly by trowel. The scratch coat should be allowed to cure for 12 - 48 hours at 20°C before applying the Nitoflor SL3000 UT. If the scratch coat has been allowed to cure for >48 hours then the coat must be thoroughly abraded and a fresh layer of scratch coat applied. If severe pin-holing is evident in the cured scratch coat, indicating that air is rising from the substrate, then remedial action should be taken. Contact your local Fosroc office for advice. Failure to do so may result in increased risk of pin-holing of the surface topping.</p>	

d.	<p>Cementitious Polyurethane floor topping: Providing mixing and applying Cementitious polyurethane floor topping at a thickness of 3.0mm using Fosroc Nitoflor SL 3000 UT a three-component product. A forced-action rotary paddle mixer is recommended for mixing the product. Topping applied at 3.0mm thickness over a scratch coat of 1mm to the designated area and shall have smooth matt finish, on cured shall exhibits the following Compressive Strength (ASTM C109) 28 days at 50.8 MPa, Tensile Strength (BS6319-7) 6.8 MPa, Flexural Strength (BS6319-3) 17.9 MPa, Slip Resistance (ASTM E303) Dry, S56/ S96 - 22/32 (moderate slip risk), Impact Resistance (ASTM D2794), Joules for 3mm thickness 8.1 and for 6mm thickness 10.8, high resistance to damage, Anchorage grooves should be cut to a minimum of twice the thickness to be laid, up to a maximum of 10 mm and at least equal in width to the thickness of material to be laid, at the edges, day joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed Work shall be executed by authorised Fosroc applicator and complete as per the instructions of manufacturer.</p>	
WET PROCESS		
8.23	Resin rich, trowel applied Very heavy duty Polyurethane floor screed at thickness subject to Temperature conditions.	sqm
a.	<p>Surface Preparation Inadequate preparation will lead to loss of adhesion and failure. In coatings or flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light vacuum-contained shot-blasting is therefore preferred over planning for these systems. Percussive scabbling or acid etching is not recommended. Anchorage grooves should be cut to a minimum of twice the thickness to be laid, up to a maximum of 10 mm and at least equal in width to the thickness of material to be laid, at the edges, day joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed.</p>	
b.	<p>New concrete floors: The base should be a minimum of Grade RC30 of BS 8500-2:2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa. The laitance and any surface sealer or curing membrane should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. For concrete bases in contact with the ground, a damp-proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of Practice For Protection Of Buildings Against Water From The Ground).</p>	
c.	<p>Old concrete floors: All laitance and surface contamination, e.g. oil, paint and rubber, should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment. Heavy oil or grease deposits should first be removed either mechanically, by steam cleaning, or by biological treatment, then by high pressure water blasting followed by the application of a penetrating primer. Where oil or grease contamination has been severe or of long duration, none of these methods may prove satisfactory and in these cases removal of the affected base would be necessary. In existing buildings without a functioning damp-proof membrane, the application of a surface-applied membrane should be considered. Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this</p>	

	is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided e.g. by direct drainage.	
d.	<p>Priming: Nitoflor SL3000 UT should be applied as a primer/ scratch coat at a coverage rate of up to a nominal 1 mm thickness; actual coverage rate will depend on concrete surface texture and porosity. This scratch coat is designed to prime and seal the floor.</p> <p>Fosroc Nitoflor SL3000 UT is a three-component product. A slow-speed forced action helical or twin-paddle mixer is recommended for mixing the product. Drain the contents of the liquid base and liquid hardener components into a large plastic container and mix briefly. Load the coloured aggregate component whilst mixing, and continue mixing for at least 1 minute, until a lump-free mix is obtained, including a scrape down if necessary. Immediately discharge and spread the mix over the application area evenly by trowel, ensuring that anchorage grooves are Fully wetted out. The scratch coat should be allowed to cure for 12 - 48 hours at 20°C before applying the Nitoflor RT6000 UT. If the scratch coat has been allowed to cure for >48 hours then the coat must be thoroughly abraded and a fresh layer Of scratch coat applied. If severe pin-holing is evident in the scratch coat, indicating That air is rising from the substrate, and then remedial action should be taken. Contact your local Fosroc office for advice. Failure to do so may result in increased risk of pin-holing of the surface topping.</p>	
8.24	<p>Cementious polyurethane floor topping: Providing mixing and applying Cementious polyurethane floor topping at a thickness subject to temperature condition, Fosroc Nitoflor RT6000 UT is a heavy duty, trowel applied polyurethane floor screed designed with the highest order of durability to resist impact, abrasion, chemical attack and other physical aggression. Its lightly textured finish makes the product ideal for both wet and dry processing environments. Fosroc Nitoflor RT6000 UT is a four-component product, comprising base, hardener, coloured aggregate and a second aggregate. The system shall provide the following properties when laid in accordance with data sheet. BS 8204-6 Type 8 Floor (heavy duty to very heavy duty) Compressive Strength, BS6319-2: 56 MPa, 28 days, Tensile Strength BS6319-7, : 5.7MPa, Flexural Strength, BS6319-3,: 13.9 MPa,</p> <p>Service temperature range 6mm -15°C to +70°C, Service temperature range 9mm -45°C to +90°C (excursions to 120 °C possible during steam cleaning)</p> <p>Cost Inclusive of Supply, apply, equipment. Exclusive of GST as applicable. Client shall provide Storage, Power, water, etc., Flooring work shall be executed by Fosroc Authorised Applicator.</p>	
8.25	PU floor Coving: Nitoflor Coving UT size - 75mm x 75mm	rmt
a.	Surface Preparation: Removing all laitance and any surface sealer or curing membrane by mechanical means such as shot-blasting, grinding or light scabbling to the level of sound concrete. After surface preparation, all loose debris and dirt should be removed by vacuum equipment.	
b.	Priming: Priming is carried out using a mix of Part A and Part B only. Thoroughly drain the contents of the hardener component into the base component and mix for a minimum of 1 minute or to provide a homogeneous mix. Apply by roller or brush and spread uniformly at the rate of approximately 5m ² /1kg set depending on the substrate. Nitoflor Coving UT must be applied wet to wet onto the primed surface before the primer is cured	
c.	Polyurethane coving mortar: Providing and applying 3 components, Water based	

	<p>Polyurethane coving mortar Nitoflor Coving UT topped with a sealer coat Nitoflor HB 200UT of Fosroc make. The substrate shall be prepared properly prior laying UT coving, priming the surface with suitable primer as recommended in the manufacturer datasheet @ 12.5m²/2.5kg set depending on the substrate. Laying Nitoflor Coving UT 1.8 - 2.0 kg/m²/mm thickness wet to wet onto the primed surface before the primer is cured. Followed by applying 3 components Water-based high-build polyurethane coating sealer coat Nitoflor HB 200 UT in 2 coats 6 m² per 4.75 kg pack per coat@ 200microns WFT per coat. Fosroc Nitoflor HB200 UT is available in a range of standard Fosroc colours. Complete as per the manufacturer Instruction.</p>	
8.26	Expansion joints	
a.	<p>Surface preparation: Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae, Oil and grease deposits should be removed by mechanical means.</p>	
b.	<p>Priming: Prime sealing slot surfaces with Primer No. 20 using a clean dry brush. Colpor 200 must be applied between 30 minutes and 2 hours after priming.</p>	
c.	<p>PU Sealant: Providing mixing and laying PU Sealant at the designated joints are to be sealed using Fosroc Colpor 200PF over the Backer rod of Expancel which shall position on the filler board of Hydrocel XL of the Expansion joint , pavement sealant manufactured by Fosroc to BS 5212: 1990 and U.S.Federal Specification SS-S 200E:1984.. Colpor 200PF has a movement accommodation factor of 30% in butt joints.. To ensure the sealant operates within its stated movement capacity of 30%, the width of sealing slots should be designed in accordance with the recommendations of IRC-57-2006. In trafficked areas the expansion joint width should not generally Exceed 30 mm.</p> <p>Joint depth: In trafficked areas the sealing slots should be constructed so that at no time during the anticipated operating cycle of the joint will the sealant protrude above the surface of the concrete pavement. It is necessary to recess the level of the sealant 5 to 8 mm below the pavement surface, dependent on the time of year and temperature prevailing at the time of sealing.</p> <p>Note: The width to depth ratio of the Colpor 200PF seal should be 1:1 to 1½:1 subject to a minimum 10 mm depth of sealant (example, contraction joint: 15 mm wide x 13 mm depth; expansion joint: 25 mm wide x 20 mm depth). Complete as per the manufacturer Instruction. Cost Inclusive of Supply, apply, Equipment's. Exclusive of GST as applicable. Client shall provide Storage, Power, water, etc. Flooring work shall be executed by Fosroc Authorised Applicator.</p>	