NBS M50 ALTRO STRONGHOLD 30 SAFETY FLOORING
COMBINED PARAGRAPHS

TYPE(S) OF COVERING

150 PLASTICS FLOORING:
- Location:
- Base:
- Preparation: Clauses
- Fabricated underlay: _____ as clause _____
- Flooring roll: PVC floor covering to BS EN 13845.
- Manufacturer and product reference:
  - **Altro Stronghold 30 3.0 mm thick Safety Floor by Altro Floors**, telephone 01462 480480.
- Usage Classification: EN ISO 10874 class 34/43.
- Slip potential: Pendulum test value (PTV) (minimum) to EN 16165 Annex C / BS 7976: ≥55 (wet – slider 96).
- Surface roughness (Rz) (minimum) to BS 1134:≥ 20
- Recycled content: 10%
- Width: **2000 mm**
- Thickness: **3.0 mm**
- Colour: **TBC**
- Adhesive (and primer if recommended by manufacturer): AltroFix 19 Plus
- Seam welding: Hot-welding with matching Altro Welding Rod, as clause 680A.
- Accessories: Clauses
- Skirting: Clauses
- Maintenance and Finishing: Clauses
- Special requirements:
  - Where the flooring is used to form the coved skirting, make certain that the wall background is smooth, clean and dry enough to allow full adhesion of the system.

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GENERALLY

210 WORKMANSHIP GENERALLY:
- All bases must be rigid, dry, sound, smooth and free from grease, dirt and other contaminants before coverings are applied.
- Finished coverings must be accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

220 SAMPLES:
- Before placing orders, submit for approval a representative sample of each type of covering. Ensure that delivered materials match samples.

230 CONTROL SAMPLE(S):
- Complete area(s) of the finished work in approved location(s) as follows, and obtain approval of appearance before proceeding:

  _____
  _____
  _____

250 LAYOUT:
- Agree setting out of seams before ordering roll materials for sheeting type(s) M50/150.

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251 LAYOUT:
- Set out sheet coverings so that seams and cross seams are kept to a minimum. Cross seams will not be permitted.

252 LAYOUT:
- Agree setting out of pattern before ordering materials for covering type(s) M50/150.

270 EXTRA MATERIAL:
- Provide **5%** extra of each type of covering to be handed over to the Employer at completion.

310 MARKING:
- Ensure that materials are delivered to site in original packing, clearly marked with batch number.

320 STORAGE:
- Store materials in a clean, warm, dry, well ventilated place. Keep in original packing until conditioning commences.

330 COMMENCEMENT:
- Do not lay materials until building is weathertight, wet trades have finished their work, the building is well dried out, all paintwork is finished and dry, conflicting overhead work completed, and floor service outlets, duct covers and other fixtures around which the materials are to be cut have been fixed. Inform CA not less than 48 hours before commencing laying.

340 CONDITIONING:
- Before laying commences thoroughly condition materials by unpacking and separating in the spaces where they are to be laid. Maintain resilient flooring rolls in an upright position. Minimum conditioning time and temperature to be as recommended by manufacturer. Extend period by a factor of 2 for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

350 ENVIRONMENT:
- Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after the building is occupied.

360 UNDERFLOOR HEATING:
- In accordance with BS 8203 Underfloor heating should be switched off 48 hours prior to laying the floorcovering. The heating should not be turned on until at least 48 hours after laying and peak temperature should be avoided for a further 7 days.

PREPARING BASES

410 SUITABILITY OF NEW BASES AND CONDITIONS:
- Laying of coverings will be taken as joint acceptance by the Main Contractor and Subcontractor of the suitability of the bases and conditions within any given area.

420 SUITABILITY OF EXISTING BASES AND CONDITIONS:
- Before commencing work the subcontractor must confirm (through the Main Contractor) that existing bases will, after the specified preparation, be suitable to receive the specified coverings.
- Laying of coverings will be taken as further acceptance of the suitability of the bases and also of the conditions within any given area.

430 DAMPNESS:
- Where coverings are to be laid on new wet-laid bases:
- Ensure that drying aids have been turned off for not less than 4 days, then
- Test for moisture content using an accurately calibrated hygrometer in accordance with BS 5325, Annexe A or BS 8203, Annexe B.
- Take readings in all corners, along edges, and at various points over the area being tested.

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- Do not lay coverings until all readings show 75% relative humidity or less.

440 SUBSTRATES:
- The specifications for trowelled finishes to receive thin floor coverings require:
- A uniform, smooth surface free from trowel marks and other blemishes, and suitable to receive the specified floor finish material.
- Adequate protection from construction traffic.
- Allowance for making good by application of a smoothing compound by and to the satisfaction of the flooring subcontractor in the event of the surface being unsuitable due to inadequate finishing or protection.

462A SMOOTHING UNDERLAYMENT COMPOUND:
- Manufacturer and reference: **Ardex UK Ltd, Arditex 'NA' smoothing**
- Apply to base at a minimum thickness of 3mm in accordance with manufacturer's product data sheet incorporating aggregate for applications more than 12mm thick.
- Allow to dry before laying floor tiling/sheeting.

462B SMOOTHING UNDERLAYMENT COMPOUND:
- Manufacturer and reference: **F Ball & Co Ltd STOPGAP 1200 smoothing compound**
- Apply to base at a minimum thickness of 3mm in accordance with manufacturer's product data sheet incorporating aggregate for applications more than 12mm thick.
- Allow to dry before laying floor tiling/sheeting.

470 EXISTING FLOOR COVERING TO BE REMOVED:
- Completely remove covering and as much adhesive as possible. Skim with smoothing underlayment compound to give a smooth, even surface.

480 EXISTING FLOOR COVERING TO BE OVERLAID:
- Make good by local resticking and patching or filling with smoothing underlayment compound to give a smooth, even surface.

531A SURFACE DAMP PROOF MEMBRANE:
- Manufacturer and reference: **Altro Proof standard variant epoxy surface damp proof membrane by Altro Floors effective up to 97% R.H.**
- **NB:** Please note Altro Proof fast-track variant is also available where floor coverings are to be laid same day. Conditions apply.
- In the event of underfloor heating please consult Altro Technical for conditions of use.
- Apply in accordance with manufacturer's instructions.

560 PLYWOOD UNDERLAY:
- To an approved national standard.
- The generic terminology for plywood to be used as a subfloor for all types of flooring installations is Marine grade, compliant with BS1088-1:2003
- Bonding quality to BS EN 314: Part 2: Class 3
- Finish: Moisture tolerant
- Thickness: 6 mm.
- Sheet size: _____ x _____ mm.
- Ensure that existing floor boards are securely fixed and acceptably level. Remove or fill any gross irregularities. Punch in any protruding fasteners.
- Lay sheets with cross joints staggered such that no joint within the base and underlay is coincident and with a 0.5-1 mm gap between sheets.
- Fix with 25 mm ring shanked or twisted shank nails or divergent staples, commencing at the centre of one side of each sheet, at 150 mm grid centres over the area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
- Ensure that fasteners are driven well in, with heads set flush with surface, and do not project through underside of base. Remove and replace fasteners that deform while being driven.

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NBS SPECIFICATION
Altro Stronghold 30

LAYING COVERINGS

610A SETTING OUT
- Place the material in position on the floor, allowing at least 25 mm each end for trimming, and overlapping at least 15 mm at joints.
- Cut-in material along joints.

620 COLOUR CONSISTENCY:
- In any one area/room use only coverings from the same production batch to prevent banding or patchiness resulting from colour/flash variation.

640 ADHESIVE FIXING GENERALLY:
- Adhesive: when not specified otherwise, type to be as recommended by covering/underlay manufacturer as appropriate or, in the absence of such recommendation, type to be approved.
- Use a primer where recommended by adhesive manufacturer. Allow to dry thoroughly before applying adhesive.
- Spread adhesive evenly and lay covering, pressing down firmly and rolling laterally and transversely (if recommended) to ensure full contact and a good bond overall. Reroll (if recommended) within 30 minutes.
- Remove all surplus adhesive from exposed faces of coverings as the work proceeds.
- Trowel ridges and high spots caused by particles on the substrate will not be accepted.

641A ADHESIVE FIXING – ALTRO SHEET FLOORING:
- Place the material in position on the floor, allowing at least 25 mm each end for trimming, and overlapping at least 15 mm at joints.
- Cut-in material along joints.
- Fold (do not roll) the material back along half its length. When adhesive is ready, refold material back onto adhesive. Repeat for second half of material.
- Consult data sheet on rolling requirements.

670A BORDERS/FEATURE STRIPS of sheet material:
- For traditional, non-vulnerable areas, cut strips along the length of the sheet to prevent curl.
- Mitre joints at corners.

670B BORDERS/FEATURE STRIPS of sheet material:
- For volatile areas or where mitres are exposed to a greater risk of impact, cut Altro butterfly mitres at internal and external corners.
- See relevant Altro detail drawings.

680A SEAM WELDING:
- Do not commence welding of coverings until a minimum of 24 hours after laying or until adhesive has completely set.
- Cut groove, 3 mm wide by 2/3 the depth of material, evenly along each joint using:
  - Altro hand grooving tool or
  - Automatic grooving machine fitted with diamond blade.
- Hot-weld using hot air welding gun (fitted with high speed welding nozzle) and Altro welding rod. Select colour of rod to match floor covering. Cut off surplus weld rod with spatula. Do not chemical weld.
- Form a neat, smooth, strongly bonded joint, flush with finished surface.

720 DOORWAYS:
- Make joint on centre line of door leaf unless specified otherwise.

731A SEALANT:
- Manufacturer and reference: AltroMastic 100 by Altro Floors, colour to match floorcovering.
- Location: To all exposed edges of flooring material around all protrusions through floor and

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pipework as necessary.

740 EDGINGS/COVER STRIPS:
- Manufacturer and reference(s): Quantum_____
- Material/finish: Aluminium / PVC
- Fix securely in accordance with manufacturers instructions.

741A EDGING TO _____
- Manufacturer and reference: Visedge VR Edge Strip by Howe Green Ltd.
- Size: 9 mm deep x 30 mm wide.
- Cut recess in base, bed edge strip level in epoxy mortar, and securely screw to base with neatly mitred joints.
- Make good base by filling with smoothing compound to give a smooth, even surface.
- Cut, groove and hot weld PVC insert to Altro safety flooring.
    - See Altro detail drawing D12.

741B EDGING TO _____
- Use disc cutter to form 25 mm deep x 4 mm wide channel at junction with adjacent floor finish.
- Manufacturer and reference: Gully Angle GA25/35 by Altro Floors.
- Size: 25 x 25 mm.
- Colour:
- Orientate angle to suit thickness of flooring material. Fix securely and level with neatly mitred joints, bonding to base and to inside of chase using AltroFix 19 Plus.
- Cut, groove and hot weld angle to Altro safety flooring.
    - See Altro detail drawing D10.

742 DRAIN OUTLETS:
- Drain outlet/channel to be clamping ring type gulley/type channel such as those supplied by Wade International, tel: 01787 475151. The Altro flooring should be dressed into the drain outlet/channel and be clamped by the clamping ring/clamping section.
    - See detail drawing D13 (ring type gully)
    - Alternatively drawing reference D14 (channel type)

770A SET-IN COVED SKIRTINGS:
- Manufacturer and reference(s): Altro PRCS100.
- Size: 100mm high x 25mm wide at base.
- Colour: Black 208 / Dove 001 / White WHT
- Securely bond with top edge straight and parallel with floor. Accurately mitre at corners.
- Adhesive:
- Hot weld to edge of floor with matching Altro Welding Rod. Do not chemical weld.
- Seal mitred corners using AltroMastic 100.
    - See Altro detail drawing D3.

770B SIT-ON COVED SKIRTINGS:
- Manufacturer and reference(s): Quantum SO 100.
- Size: 100 mm high x 19 mm wide at base.
- Colour: TBA
- Seal between wall and floor perimeter with AltroMastic 100, prior to fixing skirting.
- Securely bond with top edge straight and parallel with floor. Accurately mitre at corners.
- Adhesive:
    - See Altro detail drawing D2.

771A SELF-COVED SKIRTINGS - GENERAL:
- Cove former: Altro 38R.
- Securely bond to base and background.
- Turn flooring material up wall and securely bond to cove former and background, with top edge straight.

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- Accurately mitre at corners.
- Height: Minimum 100mm
- Top edge: Altro: C7 Capping Seal / C8 Captile Strip / C11 Quarry Tile Seal
- Adhesive:
- Hot weld joints and mitred corners with matching Altro welding rod. Do not chemical weld.
    - See Altro detail D4 (C7) / D5 (C8) D6 (C11)

771B SELF-COVED SKIRTINGS - WHITEROCK:
- Cove former: Altro 38R.
- Securely bond to base and background.
- Turn flooring material up wall and securely bond to cove former and background, with top edge straight.
- Accurately mitre at corners.
- Height: Minimum 150mm
- Top edge: Overlap by 50mm
- Adhesive:
- Hot weld joints and mitred corners with matching Altro welding rod. Do not chemical weld.
- Seal underside of Whiterock sheet using AltroMastic 100 clear.
    - See Altro detail drawing WF8

773A JUNCTIONS BETWEEN SELF-COVED SKIRTINGS AND DOOR FRAMES/ARCHITRAVES:
- Trim back of cove formers in proximity to door openings, and terminate self-coved skirtings against side of architraves.
    - See Altro detail drawing D9.

780A TRAFFIC:
- After laying, keep floor covering free from traffic until adhesive is set.

COMPLETION

810 CLEANING GENERALLY:
- Remove all scrap, dust and dirt. Carefully remove adhesive and other marks from coverings and adjacent surfaces, using approved cleaning agents and methods.

821A FINISHING PLASTICS FLOORING:

GENERAL
- Wash floor with water containing AltroClean 44 or equivalent alkaline cleaner.
- Thoroughly rinse with clean water to remove detergent, and allow floor to dry.

SMALL / LIGHTLY SOILED AREAS
- Scrub with a deck scrubber or Altro Unipad, 14” x 4” rectangular cleaning pad ref: AHCP 14/4/10 attached to a Multimop MM30 multi mop handle as instructed above.
-
- LARGE / HEAVILY SOILED AREAS
- Mechanically scrub using a rotary cleaning machine fitted with an Altro Unipad cleaning pad (or similar of the correct size) reference:
    - AMCP 13/5 13”
    - AMCP 15/5 15”
    - AMCP 16/5 16”
    - AMCP 17/5 17”

    - All of the above cleaning pads/Multimop and AltroClean 44 floor cleaner can be obtained from: All Purpose Cleaning Supplies Ltd, 6 North Street, Melton Mowbray, Leicestershire, LE13 1NL, Tel: 01664 566599

    - Contact Altro for detailed cleaning instructions:

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- Telephone: +44(0)1462 707600
- email : enquiries@altro.com
- website : www.altro.com

861 SLIP RESISTANCE TESTING
- Testing authority: An approved laboratory
- Floor covering(s) to be tested: M50/150
- Test: EN 16165 Annex C / BS 7976 slider 96
  - Floor covering condition: WET
  - Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: _____.
  - Report: Submit.

861A SLIP RESISTANCE TESTING
- Testing authority: Altro
- Floor covering(s) to be tested: M50/150
- Test: EN 16165 Annex C / BS 7976 slider 96
  - Floor covering condition: WET
  - Altro will supply on request an inspection certificate stating slip resistance of floor covering tested to EN 16165 Annex C / BS 7976.

870 PROTECTION:
- Cover flooring with clean dust sheets, or other nonstaining suitable material to prevent damage from dirt and traffic prior to Practical Completion. Ensure any material with printed information on one face is laid with printed face uppermost.

880 WASTE / RECYCLING: ALTRO RECOFLOOR™
- Clean, adhesive-free off-cuts to be removed from site and taken to an Altro Recofloor collection points for recycling.
  - Contact Altro for further details of this scheme and the Recowall recycling scheme.
    - Telephone: +44(0)1462 707600
    - email : enquiries@altro.com
    - website : www.altro.com

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