

0651P KARNDÉAN IN RESILIENT FINISHES

Branded worksection

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Worksection application

This branded worksection *Template* is applicable to resilient sheet and tile finishes with associated underlay including cork tiles, linoleum, corklinoleum, rubber, polyvinyl chloride (PVC-U), flexible terrazzo tiles, static control flooring and flocked textile flooring supplied by Karndean Designflooring.

Guidance text

All text within these boxes is provided as guidance for developing this worksection and should not form part of the final specification. This *Guidance* text may be hidden or deleted from the document using the NATSPEC Toolbar or the hidden text *Hide* and *Delete* functions of your word processing system. For additional information visit FAQs at www.natspec.com.au.

Optional text

Text in this font (blue with a grey background) covers items specified less frequently. It is provided for incorporation into *Open* text where it is applicable to a project.

Related material located elsewhere in NATSPEC

If a listed worksection is not part of your subscription package and you wish to purchase it, contact NATSPEC.

Related material may be found in other worksections. See example:

- *Concrete finishes* for substrates.
- *Sheet flooring and decking* for substrates.
- *Access floors*.
- *Carpets*.
- *Floor sanding and finishing* for substrates.
- *Resin based seamless flooring*.
- *Wastewater* for fitting to floor wastes.

Cross references

Worksections that cross reference this worksection are:

- None

Material not provided by Product Partner

This worksection *Template* includes generic material which may not be provided by Karndean Designflooring, including:

- Corklinoleum.
- Cork tiles.
- Linoleum.
- Rubber.
- Flexible terrazzo tiles,
- Static control flooring,
- Synthetic sporting surface.

Documenting this and related work

You may document this and related work as follows:

- Nominate the locations of finishes and finish abutments and control joints on drawings to your office documentation policy.
- Check lead time for imported selections and consider adding a requirement, in **SUBMISSIONS**, for the builder to verify availability.

Specifying ESD

Refer to the NATSPEC TR 01 - *Specifying ESD*. This worksection contains the following in default text:

- Recycled material content (post-consumer and pre-consumer waste product).

1 GENERAL

Karndean Designflooring was founded back in 1973 and is a global supplier of commercial and residential luxury vinyl flooring. Karndean International, Inc. is a UK based company, with operations in Australia, has a reputation for creating unique vinyl floor designs that are inspired by natural materials such as ceramic, glass, slate, limestone, wood, and marble.

1.1 RESPONSIBILITIES

General

Requirement: Provide polyvinyl chloride (PVC-U) surface coverings supplied by Karndean Designflooring and other resilient floor finishes to substrates, as documented.

Documented is defined in the *General requirements* worksection as meaning contained in the contract documents.

1.2 COMPANY CONTACTS

Karndean Designflooring technical contacts

Website: www.Karndean.com.au/en-au/contact

1.3 CROSS REFERENCES

General

Requirement: Conform to the following worksection(s):

- *General requirements*.

The *General requirements* worksection contains umbrella requirements for all building and services worksections.

- [complete/delete]

List the worksections cross referenced by this worksection. The *General requirements* worksection references the *Common requirements* subgroup of worksections. It is not necessary to repeat them here. However, you may also wish to direct the contractor to other worksections where there may be work that is closely associated with this work.

NATSPEC uses generic worksection titles, whether or not there are branded equivalents. If you use a branded worksection, change the cross reference here.

See **Related material located elsewhere in NATSPEC** in the introduction *Guidance*.

1.4 STANDARDS

General

Installation: To AS 1884.

AS 1884 provides details of work necessary to prepare subfloor surfaces and procedures to be adopted for laying resilient floor covering.

1.5 MANUFACTURER'S DOCUMENTS

Technical manuals

Manuals: www.Karndean.com.au/technical-datasheets

1.6 INTERPRETATION

Abbreviations

General: For the purposes of this worksection the following abbreviations apply:

- PVC-U: Polyvinyl chloride.
- SBR: Styrene butadiene rubber.
- LVT: Luxury vinyl tiles.

Definitions

General: For the purposes of this worksection the definitions given in AS 1884 and the following apply:

- Acoustic underlay: A resilient underlay providing acoustic insulation.
- Resilient floor coverings classification: To BS EN ISO 10874.

BS EN ISO 10874 classifies resilient floor coverings by level of use for domestic, commercial and industrial applications.

- Substrate: The surface to which a material or product is applied.
- Underlay: A non-structural layer of sheet material or an in situ levelling material on the substrate to provide a smooth and level surface.

Edit the **Definitions** subclause to suit the project or delete if not required. List alphabetically.

1.7 INSPECTION

Notice

Inspection: Give notice so that inspection may be made of the following:

- Substrate immediately before fixing resilient finishes or underlay.
- Completed underlay, if any.
- Finished surface before applying sealers or polishes (if any).
- Completed installation.

Amend to suit the project adding critical stage inspections required.

Hold points, if required, should be inserted here.

1.8 SUBMISSIONS

Materials and components

Manufacturer's data: Submit the manufacturer's product data for each type of finish, and the manufacturer's recommendations for its application in the project including, if relevant, the following:

- Thickness and width of sheet or size of tile.
- Adhesive and jointing method.
- Resistance to wear, indentation, chemicals, light and fire.
- Flexibility and bending strength.

Samples

If the specification does not state selected properties such as colour and texture, the effect of this clause is to require the submission of samples covering the full range of those properties. The specification should define the item with enough precision, either by description, or by reference to preselected samples, or as a proprietary item, to enable the contractor to identify and price it. Where the covering is specified as a proprietary item, use this clause as a means of confirmation.

Range: Submit labelled samples of resilient finishes illustrating the range of colour, pattern or texture of the product.

Minimum size per sample:

- Sheet: 450 x 450 mm.
- Tiles: A whole tile or 0.09 m², whichever is the greater.
- Linear accessories (including coving, skirting, stair nosing, protection strips): A piece 300 mm long.
- Welded joints: 300 mm long.

No welded joints are required for Karndean Designflooring products.

Identification: Label each sample, with brand, product name, and manufacturer's code reference (including the code for each coat of multi-coat work).

Sample panels: Provide sample panels as follows:

Location: [complete/delete]

Size (mm): [complete/delete]

Call for sample panels only when large areas are specified. Delete if not required.

Trial set-out: Prepare a trial set-out before fixing.

Subcontractors

General: Submit names and contact details of proposed suppliers and installers.

Substrate acceptance

Applicator: Submit the installer's certification of the acceptability of the flooring substrate before commencing installation.

Tests

The *General requirements* worksection covers tests in **Definitions** and calls for an inspection and testing plan under **SUBMISSIONS, Tests**.

Type tests: Submit results, as follows:

- Manufacturer's type tests showing that materials conform to cited standards.
- Type test slip resistance of resilient finishes to AS 4586.

Type tests are carried out before the contract. However, submission of evidence of a successful type test may be called up here for items specified in **PRODUCTS**.

Other tests: Submit results, as follows:

- Site slip resistance test of completed installations.
- Moisture content test.

Detail the tests required in **PRODUCTS** or **EXECUTION**, as appropriate, and list the submissions required here.

Warranties

Requirement: For each type of resilient finish specified, submit the manufacturer and installer's warranty of the material, workmanship and application.

Warranty items: [complete/delete]

Describe the requirements of warranties in **PRODUCTS** or **EXECUTION**, as appropriate, and list the submissions required here.

Consult or negotiate with manufacturers for warranty terms, and specify only such terms as are actually available. State requirements.

Karndean Designflooring provides the following warranty conditions:

Manufacturer's warranties:

- Flooring with 0.3 mm wear layer: 12 years for heavy domestic and 10 years for light commercial applications.
- Flooring with 0.5 mm wear layer: 15 years for heavy domestic and 10 years for heavy commercial applications.
- Flooring with 0.7 mm wear layer: 20 years for heavy domestic and 15 years for heavy commercial applications.

Warranty terms: 'Karndean vinyl tile and plank floor covering products will be deemed to have worn out when the top wear layer has worn to expose the photographic design layer within the applicable warranty period specified for that quality range'.

Installer's warranty: All installer warranties cover subfloor preparation and workmanship for 1 year from the date of installation.

2 PRODUCTS

2.1 GENERAL

Product substitution

Other products: Conform to **PRODUCTS, GENERAL, Substitutions** in the *General requirements* worksection.

The *General requirements* worksection clause sets out the submissions required if the contractor proposes alternative products. Refer also to NATSPEC TECHnote GEN 006 for more information on proprietary specification.

2.2 MARKING

Identification

General: Deliver materials to the site in the manufacturer's original sealed containers or packing, legibly marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.
- Material composition and characteristics such as volatility, flash point, light fastness, colour and pattern. Provide technical data sheets if not shown on labels.
- Handling and installation instructions.
- Material safety data sheets.

Edit the list to suit the project or delete if not required.

2.3 UNDERLAYS

A thin cementitious type underlay may be used as an isolating barrier of known electrical resistance beneath antistatic or conductive flooring if required. Other special underlay systems are available for the reduction of impact noise, these may be laid directly on the substrate or over an isolation pad or board, an embedded reinforcing mat is usual. Consult manufacturers of both underlay and floor covering for compatibility and installation requirements.

Cementitious

General: Polymer modified cementitious self smoothing and levelling compound.

Thickness: 3 mm minimum.

Use to correct the substrate. Avoid a feather edge that may curl, by cutting back for a 3 mm minimum thickness. Delete if not appropriate.

Fibre cement underlay

Standard: To AS/NZS 2908.2, Type B, category 2 minimum.

Thickness: 5 mm minimum.

Wet processed fibreboard (hardboard) underlay

Standard: To AS/NZS 1859.4.

Classification: General purpose medium board, manufactured specifically as flooring underlay.

Thickness: 5.5 mm.

Acoustic underlay

Product: Regupol® 4515 Acoustic underlay.

Available direct from Regupol (Australia) Pty Ltd.

Thickness: 3 mm.

Application: Dual bonding with vinyl tile or plank.

Adhesive: Regupol RV adhesive for both bonds.

Select from the following Karndean Designflooring products and nominate here or in **SELECTIONS**:

- Generally: All Karndean Designflooring tile and plank products when installed with Regupol® 4515 Acoustic underlay complies with BCA F5.3(a), for Class 2 and 3 buildings.
- Looselay and plank: No separate underlay is required to comply with BCA F5.3(a), for Class 2 and 3 buildings.

Delete clause if acoustic underlay is not required.

2.4 SHEETS AND TILES**Edges of sheets and tiles**

General: Make sure edges are firm, unchipped and machine-cut accurately to size and square to the face, and that tile edges are square to each other.

Polyvinyl chloride (PVC-U)

Resilient floor covering, homogeneous and heterogeneous: To BS EN ISO 10581.

Resilient floor covering, jute or polyester felt backing: To BS EN 650.

Resilient floor covering, with foam layer: To BS EN 651.

Resilient floor covering, semi-flexible polyvinyl chloride tiles: To BS EN ISO 10595.

Proprietary PVC-U products will generally be imported and conform to overseas standards.

See AIA EDG 71 PD and the CSIRO Report on the subject of PVC-U. See also NATSPEC TECHnote DES 001 on slip resistance. Consult the manufacturer on suitability for service conditions, especially for severe conditions such as underfloor heating or high humidity.

Karndean Designflooring PVC-U flooring

Product: [complete/delete]

Select from the following Karndean Designflooring products and nominate here or in **SELECTIONS** if more than one product:

- Art Select (Oak Premier, Parquet, Oak Royale, Hand Crafted Wood) – wood textured plank effect flooring, bevelled edge, standard thickness 3 mm, 0.7 mm thick wear layer.
- Da Vinci – smooth surface slim wood plank and stone effect floor tiles, bevelled edge, standard thickness 3 mm, 0.7 mm thick wear layer.
- Loose Lay – loose laid, wood plank and stone effect floor tiles non-bevelled edge, PVC-U friction pad backing, standard thickness 4.5 mm, 0.5 mm thick wear layer. Available in Series 1 and 2 which have different slip resistance ratings.
- Van Gogh – large 1219 mm x 178 mm wood plank effect flooring, non-bevelled edge, standard thickness 3 mm, 0.5 mm thick wear layer.
- Opus – large format floor tiles and wood plank effect flooring, non-bevelled edge, standard thickness 2.5 mm, 0.5 mm thick wear layer.
- Michelangelo – metallic, mosaic and pebble tile effect flooring, non-bevelled edge, standard thickness 2.5 mm, 0.5 mm thick wear layer.

- Knight Tile – wood plank, tiles and stone effect flooring, non-bevelled edge, standard thickness 2 mm, 0.3 mm thick wear layer.

Karndean Designflooring is 100% PVC-U.

The products are suitable for education, healthcare, domestic, hospitality and leisure, retail and other commercial applications.

Thickness: [complete/delete]

Adhesive: [complete/delete]

Select from the following Karndean Designflooring products and nominate here or in **SELECTIONS** if more than one product:

- Karndean Mega-Bond for general applications.
- Karndean 8000 2-part Polyurethane for high temperature and wet area applications.
- Karndean Hi-Tack PS adhesive grid stick to floor tile perimeter for loose laid applications.
- Regupol RV for bonding Regupol® 4515 Acoustic underlay.

Primer: [complete/delete]

Select from the following Karndean Designflooring products and nominate here or in **SELECTIONS** if more than one product:

- Karndean GS400 Primer for general applications or as recommended by the installer, depending on subfloor conditions.

Lead time: [complete/delete]

Karndean Designflooring, depending on stock availability, can make deliveries within 24 to 48 hours within Melbourne and within 5 working days to regional or interstate areas.

Cork tiles

Standard: To BS EN 12104.

Most of the cork tiles imported from Portugal are 305 x 305 mm square. Cork is not suitable for very heavy wear although densities over 450 kg/m³ may be available for heavy contract use.

Corklinoleum

Standard: To BS EN 688.

Linoleum

Standard: To BS EN ISO 24011.

Rubber

Standard:

- Smooth rubber: To BS EN 1817.
- Textured/relief rubber: To BS EN 12199.

Generally synthetic, available in various grades for specific uses e.g. where oils, fat, grease, acids and solvents are used. The surface is commonly moulded into patterns - usually raised studs. Static dissipative grades are available for static control - protection against electro-static discharge.

Vinyl bench topping

General: Fully flexible homogeneous sheet.

Bench or counter topping grade is available but is less durable than laminate for heavy usage. Antistatic material is available where static control is required, consult with manufacturer for special installation procedures.

Adhesives

General: To the resilient finishes manufacturer's recommendations.

Special adhesives may be required for antistatic and conductive applications.

Flexible terrazzo tiles

General: Marble or granite chips bedded in a flexible thermoset resin matrix, precision ground and polished.

Static control flooring

See NATSPEC TECHnote DES 007 on static control floors. See also AS 2834 Appendix D (informative) for the control of static electricity in computer accommodation, test methods are described.

General: Unbacked flexible sheet with electrical resistance within the range of surface resistance specified in AS 2834 clause 2.1.2, when tested to AS 4155.6.

Sheet products with antistatic properties generally refer to static dissipative grades that provide for static control and protection against electro-static discharge, however some standard products will provide some degree of static control and may prove adequate.

Acoustic sheet vinyl

General: Unbacked flexible sheet vinyl laid over separate closed cell foam acoustic underlay.

Acoustic underlay thickness: 2 mm.

For built up applications using a separate acoustic underlay, a tested system from a single manufacturer is preferable to a combination of products from different manufacturers. Single layer resilient backed sheet vinyl may provide an alternative but with a lower insulation rating.

Slip resistant sheet vinyl

Slip resistance classification: To AS 4586.

Inlaid vinyl sheet

General: A layer of vinyl chips inlaid in a translucent vinyl matrix, bonded to a moisture resistant backing.

2.5 SYNTHETIC SPORTING SURFACES

AS 3541.1 provides information on the different types of synthetic sporting surfaces and base layers for both indoor and outdoor applications. Synthetic surfaces are defined, and the parameters which should be measured along with the basic safety requirements are outlined. An extensive range of proprietary synthetic sporting surfaces and base layers are available for both indoor and outdoor applications. See SAA HB 49.2 on various synthetic sporting surfaces and subfloors (extracts from AS 3541.1).

Standard

General: To AS 3541.1.

3 EXECUTION**3.1 SUBCONTRACTORS****General**

General: Use specialist installers recommended by the materials manufacturers.

Karndean Designflooring can assist in recommending suitable installers throughout Australia.

3.2 PREPARATION**Substrates**

General: To AS 1884 Section 3.

Tolerance: To the **Substrate tolerance table**.

Substrate tolerance table

Property	Length of straightedge laid in any direction	Max. deviation under the straightedge
Planeness	2 m	4 mm
Smoothness	150 mm	1 mm
Projections	50 mm	0.5 mm

Planeness tolerance class: Nominate Class A in the **Flatness tolerance class table** in *Concrete finishes and Cementitious toppings* worksections to resilient finishes locations as appropriate for the project. It is assumed smoothness and projection tolerance corrections form part of substrate preparation.

Concrete substrates

Refer to NATSPEC TECHnote DES 008 on the preparation of concrete substrates. Refer also to CCAA Datasheet Moisture in concrete and moisture-sensitive finishes and coatings

Surface pH: ≤ 10 when tested to AS 1884 Appendix B and compatible with the adhesive.

Testing of pH should be carried out after any surface grinding. Freshly exposed concrete has high alkalinity and problems have been encountered overseas.

Moisture content: Do not commence installation unless the moisture content of the concrete has been tested to AS 1884 Appendix A and the values in clause A3.1.2 or A3.1.3 have been obtained.

Surface treatments: Mechanically remove the following surface treatments:

- Sealers and hardeners.
- Curing compounds.

- Waterproofing additives.
- Surface coatings and contamination.

The application of solvent based spray paint and makers during construction should be avoided as these products may cause bleed through to resilient finishes laid on concrete floors.

Concrete substrate correction: Remove projections and fill voids and hollows with a levelling compound compatible with the adhesive. Allow filling or levelling compound to dry to manufacturer's recommendations.

Cleaning: Remove loose materials or dust.

Timber and plywood substrates

Moisture content: Do not commence installation unless the moisture content of battens/joists or plywood substrate has been tested to AS/NZS 1080.1 for timber and AS/NZS 2098.1 for plywood and values obtained as follows:

- Air conditioned buildings: 8 to 10%.
- Intermittently heated buildings: 10 to 12.5%.
- Unheated buildings: 12 to 15%.

Timber substrate correction: Remove projections. If conformance to the **Substrate tolerance table** cannot be achieved, provide an underlay in brick pattern with joints avoiding substrate joints.

Cleaning: Remove oil, grease, traces of applied finishes and loose materials or dust.

Working environment

General: Do not start work before the building is enclosed, wet work is complete and dry, overhead work is complete and good lighting is available. Protect adjoining surfaces.

General: Stabilise the room temperature for seven days before, and two days after, installation of resilient finishes, as follows:

- Areas with air conditioning installed: Run air conditioning at operational temperature.
- Air conditioned areas not operational: Maintain an ambient room temperature range of 15°C to 28°C.

For Kardean Designflooring products, maintain the ambient room temperature at 15-26°C.

- Underfloor heating: Turn off heating and allow substrate to stabilise at the temperature recommended by the manufacturer.

Underlay: Expose both faces of each sheet for at least 24 hours before fixing.

Resilient sheet and tile floor coverings: Stack for at least 48 hours before installation.

For Kardean Designflooring products, stack for at least 24 hours before installation.

3.3 SHEET AND TILE INSTALLATION

Kardean Designflooring PVC-U flooring

General: To Kardean Designflooring recommendations.

Sheet set out

General: Set out sheets to give the minimum number of joints. Position joints away from areas of high stress. Run sheet joints parallel with the long sides of floor areas, vertically on non-horizontal surfaces.

Tile set out

General: Set out tiles from centre of room. If possible cut tiles at margins only, to give a cut dimension of at least 100 mm x full tile width. Match edges and align patterns. Arrange the tiles so that any variation in appearance is minimised.

Amend text if tile layout and joints have been documented.

Joints

Non-welded: Butt edges together to form tight neat joints showing no visible open seams.

Delete if joints are welded.

Junctions

General: Scribe neatly up to returns, edges, fixtures and fittings. Finish flush with adjoining surfaces.

Rolling

General: If rolling is required, roll the finish in multiple directions before the adhesive sets. Install Kardean Designflooring products as follows:

- Stage 1: Use a hand roller across the surface of each tile/plank as they are placed into the wet adhesive.
- Stage 2: At completion of the installation, when the adhesive has tacked-up, roll with a 30 – 40 kg floor roller.
- Stage 3: Repeat Stage 2 after 90 minutes.

Roller size: [complete/delete]

e.g. PVC-U 30 to 40 kg, Linoleum 65 kg, LVT (Luxury vinyl tiles) 45 kg, VCT (Vinyl composite tiles) 68 kg.

Change of finish

General: Maintain finished floor level across changes of floor finish including carpet.

Cleaning

General: Keep the surface clean as the work proceeds.

Finishing schedule

Sheet and tile type	Finish	Rolling after laying

Finish: e.g. Buffable water emulsion polish, Two-pack clear polyurethane (cork); Buffable metallised emulsion polish, Buffing only for slip-resistant sheet (PVC-U); Two coats buffable metallised emulsion polish (cushion backed sheet vinyl).

Scrap recycling

Participating supplier: [complete/delete]

Some manufactures will recycle site scrap vinyl of their own brand.

Kardean Designflooring do not recycle scrap material.

3.4 TILING

Cork tiles

Laying: Provide a water-based latex adhesive. Do not use pins.

Finishing: Sand after laying.

Cork tiles can be sealed or given a clear finish.

Two-pack polyurethane will give the floors a harder finish with some loss of resilience. Coordinate with the *Painting* worksection.

Kardean Designflooring PVC-U flooring

General: To Kardean Designflooring recommendations.

Laying: Dry lay tiles before installation. Lay tiles in stretcher bond. Match edges and align joints.

Stretcher bonding, where each alternate tile is laid so that the end of the adjacent tile is in the centre of the ones on either side of it, reduces the possibility of the tiles lifting at the point where the four corners join.

Rubber tiles

General: Keep tiles flat during storage. Before laying, allow the tiles to relax and decompress, and make sure that the backs are free of loose material.

Adhesive: Provide as follows:

- Horizontal surfaces: Solvent-free epoxy mechanically mixed. Use only within the limit of the adhesive pot life.
- Stair skirtings, stop ends, external mouldings and vertical surfaces: Neoprene contact adhesive applied to both the tile or accessory and the substrate surface. Fix when both surfaces are touch dry.

Laying: Lay tiles in stretcher bond. Match edges and align joints and studs. Make sure that the whole surface of the tile or accessory is in contact with the substrate.

Stretcher bond reduces the possibility of the tiles lifting at the point where the four corners join. Chequerboard may be preferred otherwise.

Stair finish: Provide as follows:

- Smallest tiles: Half tile.

- Nosing tiles: Purpose-made matching tread, nosing and riser tile. Accurately scribe, cut and fit to perimeters. Close butt seams.

Rubber nosing tiles are an alternative to forming standard tiles to radius. Proprietary anti-slip PVC-U or aluminium, or PVC-U combined riser, nosing and tread are also available. Stair stringer profile with tapered edge is available in 300 mm width.

Finishing: Sweep, vacuum, and wash using clean warm water and household soap only, to remove foreign matter, including protective wax coating. Buff when dry. Provide a suitable polish if recommended in conjunction with buffing.

3.5 SHEETING

Welded joints

Select from the alternatives and document in the **Welded joints schedule**.

Heat welding: After fixing, groove the seams using a grooving tool and weld the joints with matching filler rod, using a hot air welding gun or hot sealer. When the weld rod has cooled, trim off flush.

Heat welding was developed specifically for homogeneous sheet. It may be used for vinyl chip sheet but will be more conspicuous than cold welding and will not have the same strength as heat welding in homogeneous sheet.

Chemical welding: Apply seaming compound 100 mm wide to the substrate centrally under the seam until the compound is forced up into the joint. Clean off flush using a damp cloth.

Is less conspicuous and may be preferable for that reason.

Epoxy jointing: Join seams with epoxy adhesive.

For slip resistant vinyl sheet.

Welded joints schedule

Sheet and tile type	Welding type

Conductive flooring

General: Install conductive sheet on a copper grid comprising copper tape 80 µm thick x 10 mm wide adhered to the floor with conductive adhesive. Lay copper tape along each length of sheet vinyl and connect it at right angles to a 1 MΩ resistor. Connect to earth with copper tape at 20 to 30 m² intervals.

Provide an earthing system if electrical resistance to earth or a conductive floor is required. The earthing grid will consist of metallic strips laid directly under the flooring material, connection to building is made by a qualified electrician – a back up connection is recommended. Metal fixtures and fittings should be isolated from the flooring. Additional requirements e.g. earthing rails, placement of switches and outlets outside the area, atmosphere ionisation and humidity controls may be required – include these under the relevant worksection.

3.6 VINYL STAIR FINISH

General

Preformed: Provide purpose-made vinyl stair finish combining riser, nosing and tread in the one element. Lay each step consecutively with the joint at the bottom of each riser.

Formed in situ: Fit the sheet vinyl to each tread, and to the riser above, in one piece, coved in the angle. Accurately scribe, cut and fit to stair nosings and perimeters.

3.7 JOINTS AND ACCESSORIES

At areas of heavy use, particularly with wheeled traffic, consider specifying a prototype test for the joint product installation using the anticipated wheeled equipment.

Junctions

General: Finish junctions tapered to with adjoining surfaces. Where changes of floor finish occur at doorways locate the joint on the centreline of the closed door leaf.

If the floor finish is to be divided into bays, specify here the bay size, dividing strip or joint filler.

Accessories

General: Provide purpose-made matching moulded accessories for nosings, coves, skirtings, edge cover strips and finishes at junctions, margins, and angles, if available. Otherwise form accessories from the sheet material. Provide solid backing for radiused coves and nosings.

Accessories schedule

Accessory type	Location

Accessory type: Specify required accessories, such as nosings, wedge fillets, tile edge trim, wall and capping trim and state whether they are to be a proprietary item, purpose-made or formed.

For floor wastes to wet areas, consult with manufacturer for special requirements e.g. flanged fittings to clamp over finish, and coordinate with the **SANITARY DRAINAGE** clause in the *Wastewater* worksection.

Edge strips

General: Provide edge cover strips at junctions with different floor finishes and to exposed edges.

Metal cover strip: Extruded tapered strip 25 mm wide, of the same thickness as the sheet or tile. Fix with matching screws to timber bases or to masonry anchors in concrete bases, at 200 mm maximum centres.

Material: [complete/delete]

Material: e.g. Brass, Stainless steel or Aluminium.

PVC-U cover strip: Feather edge strip matching the floor finish, fixed with contact adhesive.

Width (mm): [complete/delete]

Width: e.g. 25 mm, 50 mm.

Colour: [complete/delete]

Control joints

Location: Provide control joints as follows:

- Over structural control joints.
- At junctions between different substrates.

Depth of joint: Right through to the substrate.

Sealant width: 6 – 25 mm.

Depth of elastomeric sealant: One half the joint width, or 6 mm, whichever is the greater.

Control joint materials – sheet flooring

Proprietary slide plate divider strip: An arrangement of interlocking metal plates grouted into pockets formed in the concrete joint edges to finish flush with the flooring surface.

Control joints schedule – Proprietary slide plate

Location			
Product			
Material			
Insert colour			

Location: State here or show on drawings.

Proprietary slide plate:

- Nominate the product type suitable for the anticipated movement.
- Material: e.g. Stainless steel.
- Insert colour: Nominate colour or omit if no insert.

Vinyl skirting

Select from the following.

Feather edge: Moulded PVC-U skirting section.

Intended for use with PVC-U or similar flat surface floor finishes, feather edge provides coverage of floor termination at the vertical surface. Occasionally used where partitions are retro fixed over carpet.

Flat skirting: Flat PVC-U skirting section.

Flat PVC-U skirtings are intended for use with carpet and provide a solid margin to assist the carpet laying process. Skirtings may be cut from sheet material but are more costly.

Pre-formed vinyl coving: [complete/delete]

Select sit-on or set-in. Sit-on is surface mounted after the floor material is laid.

Fixing: Scribe as necessary. Mitre corners. Fix to walls with contact adhesive.

Minimum height: 100 mm.

Rubber coved skirtings and margins

General: Form from smooth flat sheet matching the colour and total thickness of the rubber flooring. Scribe and mitre at internal corners.

External corners and stop ends: Provide purpose-made matching moulded pieces.

If moulded pieces are not available to match the rubber floor finish, consider using vinyl skirtings.

Coved skirtings

Provide where a continuous surface is required e.g. Wet areas, wet mopping, hygiene and clean rooms. A sealant or cover mould may be necessary at the joint with the wall finish and the door jamb profile. The width may require special consideration to make sure of a sealed overlap where the coving terminates at the door jamb.

Site formed coving: Carry the flooring material up over a profiled coving section to form the skirting and mitre and weld all joints. Make sure the radius of the coving section conforms to the requirements of the supplier for the sheeting material and thickness.

If using a contrasting border document in the **Sheet and tile schedule**.

Location: [complete/delete]

State location if not shown on the drawings.

3.8 TESTING

The *General requirements* worksection covers tests in **Definitions** and calls for an inspection and testing plan under **SUBMISSIONS, Tests**.

Construction tests

General: Test and assess conformity of construction as follows:

- Slip resistance: If a slip resistance classification is required:
 - . Method: To AS 4663.

3.9 COMPLETION

Protection of sheet materials

General: Keep traffic off floors until bonding has set or for 24 hours after laying, whichever period is the longer. Do not allow water in contact with the finish for 7 days.

Reinstatement

Extent: Repair or replace faulty or damaged work. If the work cannot be repaired satisfactorily, replace the whole area affected.

Cleaning

Consult the Karndean Designflooring system brochure.

Polyurethane reinforced vinyls do not require sealing or polishing (they are mopped and dry buffed), and other vinyl floors only require mopping. For installations in existing buildings, consult the building user as to current maintenance procedures, type of polish used, and make the new installations compatible as far as possible.

General: Clean the finished surface. Buff and polish. Before the date for practical completion, mop and leave the finished surface clean and undamaged on completion.

Karndean Designflooring vinyl: Conform to the Karndean Designflooring cleaning guidelines.

Cleaning antistatic and conductive flooring

General: Do not use sealers, wax or floor polish. Clean using a mild neutral detergent and lukewarm water. Dry buff clean floor using a scrubbing machine with a white nylon pad.

Sealers and polishes affect or destroy the antistatic properties.

Certificate of compliance

General: Provide a certificate of compliance for antistatic and conductive floor installations.

Maintenance manual

General: Submit Karndean Designflooring published use, care and maintenance requirements for each type of finish.

The following publications are available:

- Floor Care Guide Consumer (Domestic).
- Floor Care Guide – Commercial.

www.Karndean.com.au/cleaning-and-maintenance/commercial and www.Karndean.com.au/cleaning-and-maintenance/domestic.

Spare materials

General: Supply spare matching resilient finishes and accessories of each type for future replacement purposes. Store the spare materials on site where directed.

Quantity: At least 1% of the quantity installed.

Spare material schedule

Material	Quantity	Storage location

4 SELECTIONS

Schedules are a way of documenting a selection of proprietary or generic products or systems by their properties. Provide their locations here and/or on the drawings. When showing items in both places, identify them with a common code or tag to assist coordination. **Schedules** are well suited to multiple variants of the same item. If there is only a single instance of different items, a simple list may be sufficient. Make sure there is an entry for every item documented.

Duplicate and customise these **Schedules**, adding and deleting rows and columns, as required, e.g. delete rows if the selection is by the contractor or a proprietary product is selected. A proprietary product is usually selected on the basis of the properties it embodies, so there is generally no need to spell them out in a schedule – an exception being where they relate to options to, or variations from, a standard product.

4.1 PRODUCT SCHEDULES

Sheet and tile schedule

Property	RF1	RF2	RF3
Type			
Product			
Form			
Colour			
Pattern			
Tile laying pattern			
Sheet width (mm)			
Thickness (mm)			
Vinyl chip size (mm)			
Surface			
Slip resistance classification			
Slip resistance site test of completed installation			
Accelerated wear test			
Tactile indicators:			

Property	RF1	RF2	RF3
Directional: Product			
Tactile indicators: Directional: Colour			
Tactile indicators: Warning: Product			
Tactile indicators: Warning: Colour			
Critical radiant flux and smoke development rate			
Tile dimensions (mm)			
Underlay			
Skirting			

RF1, RF2, RF3: These designate each instance or type or location of the item schedule. Edit to align with the project's codes or tags.

Coordinate codes in the **Schedule** with those that appear on the drawings.

Much of the scheduled information will be unnecessary if resilient finishes are specified by proprietary items.

Include any particular requirements not otherwise specified, such as resistance to wear, indentation, chemicals, light or fire. Consult the manufacturer.

Type: e.g. Karndean Designflooring vinyl, Linoleum, Cork, Vinyl (PVC-U), Antistatic vinyl, Conductive vinyl, Cushion backed vinyl, Vinyl counter topping.

Product: e.g. Art Select, Da Vinci, Loose Lay Series One, Loose Lay Series Two, Van Gogh, Opus, Michelangelo, Knight Tile.

Form: e.g. Sheet or Tile (Vinyl, linoleum, cork, rubber); Unbacked flexible sheet, Semi-rigid floor tiles, Flexible floor tiles, Inlaid vinyl sheet (PVC-U).

Pattern: e.g.:

- Vinyl: Wood plank effect, Stone effect, Tile effect, Metallic tile effect, Mosaic tile effect, Pebble tile effect.
- Textile floorcovering: Bacteria, White, Wool, Terrazzo, Kasuri, Field, Cord, Vector, Circuit, Senya, Manila, Calgary, Montana, Dakota, Berlin.

Tile laying pattern: e.g.:

- Tile effect: Straight, Diagonal, Chequerboard or Stretcher bond.
- Woodplank effect: 90°, 45°.

Thickness: e.g.:

- For Karndean Designflooring vinyl: 2, 2.5, 3, 4.3, 4.5 mm. Check with Karndean Designflooring.
- For cork: 4.75 mm or 6.3 mm (6.3 mm is recommended for concrete floors).
- For rubber: 2.7, 4, 5, or 6 mm.
- For flexible terrazzo tiles: 4.76 mm.
- For flexible PVC-U sheet or tiles: 1.5, 2, 2.5 or 3 mm.
- For semi-rigid PVC-U tiles: 1.5, 2, 2.5, or 3 mm.
- For linoleum sheet or tiles: 2 or 2.5 mm.

Surface:

- For Karndean Designflooring vinyl: Smooth, Textured, Registered embossed.
- For cork: Smooth surface only.
- For rubber: May be smooth, textured, or studded. For studded sheet or tile state form and profile of studs. Consult manufacturer for available forms.

Slip resistance classification: Refer to NATSPEC TECHnote DES 001. For slip resistance rating of Karndean Designflooring products, see technical data sheets (see **MANUFACTURER'S DOCUMENTS**) and check with the manufacturer for the appropriate text.

Select classifications of pedestrian surface materials to the dry floor friction, wet pendulum or oil wet ramp tests.

Slip resistance site test of completed installation: e.g. Required. Delete if not required.

Accelerated wear test: Consult a test laboratory such as CSIRO or Safe Environments. Delete if not required.

Tactile indicators: To AS/NZS 1428.4.1.

- Tactile indicator: Directional: Colour: A colour contrast is required, in both wet and dry conditions, between the tactile indicators and the adjacent surface and that the colour provides a luminance contrast to the surrounding surface to AS/NZS 1428.4.1 Appendix E.

Critical radiant flux and smoke development rate: Refer to BCA Spec C1.10.

Tile dimensions: Consult the manufacturer for available sizes and thicknesses.

- For Kardean Designflooring tile products: Check with Kardean Designflooring for all sizes available.
- PVC-U tiles: 300 x 300 mm.
- Portuguese cork tiles: 305 x 305 mm.
- Rubber tiles are usually 1000 x 1000 mm or 500 x 500 mm.

Underlay: e.g. Trowelled, Hardboard, Fibre cement sheet. Consult manufacturers of resilient flooring for recommended underlay for particular applications. State thickness.

Skirting: e.g. Feather edge, flat or coved vinyl, coved rubber, or site formed coving.

Synthetic sporting surfaces schedule

Property	SS1	SS2	SS3
Sport/activity			
Underlay			
Surface product			
Skirting			
Critical radiant flux			
Slip resistance classification			
Surface marking method			

SS1, SS2, SS3: These designate each instance or type or location of the item schedule. Edit to align with the project's codes or tags.

Coordinate codes in the **Schedule** with those that appear on the drawings.

Type: e.g. Indoor or Outdoor.

Sport/activity: See AS 3541.1 Table 1 for guidance to surfacing materials for all types of sports.

Underlay: Consult the manufacturer of the proprietary surface for recommendations as to the need for, and type of, underlay.

Skirting: e.g. Feather edge, flat or coved vinyl, coved rubber, or site formed coving.

Critical radiant flux: Refer to BCA Spec C1.10.

Slip resistance classification: Refer to NATSPEC TECHnote DES 001.

Surface marking method: See AS 3541.1 clause 12 for guidance.

REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

AS/NZS 1080		Timber - Methods of test
AS/NZS 1080.1	2012	Moisture content
AS/NZS 1859		Reconstituted wood-based panels - Specifications
AS/NZS 1859.4	2004	Wet-processed fibreboard
AS 1884	2012	Floor coverings - Resilient sheet and tiles - Installation practices
AS/NZS 2098		Methods of test for veneer and plywood
AS/NZS 2098.1	2006	Moisture content of veneer and plywood
AS 2834	1995	Computer accommodation
AS/NZS 2908		Cellulose-cement products
AS/NZS 2908.2	2000	Flat sheet
AS 3541		Synthetic sporting surfaces
AS 3541.1	1988	General principles
AS 4155		Test methods for general access floors
AS 4155.6	1993	Test for floor resistance for electrostatic control
AS 4586	2013	Slip resistance classification of new pedestrian surface materials
AS 4663	2013	Slip resistance measurement of existing pedestrian surfaces
BS EN 650	2012	Resilient floor coverings. Polyvinyl chloride floor coverings on jute backing or on a polyester felt backing or on polyester felt with polyvinyl chloride backing. Specification
BS EN 651	2011	Resilient floor coverings. Polyvinyl chloride floor coverings with foam layer. Specification
BS EN 688	2011	Resilient floor coverings. Specification for corklinoleum

BS EN 1817	2010	Resilient floor coverings - Specification for homogeneous and heterogeneous smooth rubber floor coverings
BS EN ISO 10581	2013	Resilient Floor Coverings - Homogeneous Poly(Vinyl Chloride) Floor Covering - Specifications (Iso 10581:2011)
BS EN ISO 10595	2012	Resilient floor coverings. Semi-flexible/ vinylcomposition (VCT) poly(vinyl chloride) floor tiles. Specification
BS EN ISO 10874	2012	Resilient textile and laminate floor coverings. Classification
BS EN 12104	2000	Resilient floor coverings. Cork floor tiles. Specification
BS EN 12199	2010	Resilient floor coverings. Specifications for homogeneous and heterogeneous relief rubber floor coverings
BS EN ISO 24011	2012	Resilient floor coverings- Specification for plain and decorative linoleum
The following documents are mentioned only in the <i>Guidance text</i>:		
AS 1428		Design for access and mobility
AS/NZS 1428.4.1	2009	Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
SAA HB 49		Sporting facilities manual
SAA HB 49.2	1993	Sporting surfaces
AIA EDG 71 PD	2012	Polyvinyl Chloride (PVC) - Its use in construction
BCA Spec C1.10		Fire resistance - Fire Hazard Properties - Floors, walls and ceilings
BCA F5.3		Health and amenity - Sound transmission and insulation - Determination of impact sound insulation ratings
CCAA Datasheet	2007	Moisture in concrete and moisture-sensitive finishes and coatings
CSIRO Report	2001	A discussion of some of the scientific issues concerning the use of PVC
NATSPEC DES 001	2005	Slip resistance performance
NATSPEC DES 007	2007	Static control floors
NATSPEC DES 008	2006	Preparation of concrete substrates
NATSPEC GEN 006	2007	Product specifying and substitution
NATSPEC TR 01	2013	Specifying ESD