

## 0651P REGUPOL IN RESILIENT FINISHES

### Branded worksection

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### Worksection abstract

This branded worksection *Template* is applicable to resilient sheet and tile finishes with associated underlay including synthetic sporting surfaces and rubber products supplied by Regupol (Australia).

### 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](http://www.natspec.com.au).

### Optional style text

Text in this font (blue with a grey background) covers items specified less frequently. It is provided for incorporation into *Normal* style 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 for example:

- 0315 *Concrete finishes* for substrates.
- 0383 *Sheet flooring and decking* for substrates.
- 0473p *REGUPOL acoustic floor underlays*
- 0541 *Access floors*.
- 0652 *Carpets*.
- 0656 *Floor sanding and finishing* for substrates.
- 0657 *Resin based seamless flooring*.
- 0822 *Wastewater* for fitting to floor wastes.

### Material not provided by Product Partner

This worksection includes generic material which may not be provided by Regupol (Australia), including:

- Corklinoleum.
- Cork tiles.
- Linoleum.
- PVC.

### 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.

The *Normal* style text of this worksection may refer to items as being documented elsewhere in the contract documentation. Make sure they are documented.

Search [acumen.architecture.com.au](http://acumen.architecture.com.au), the Australian Institute of Architects practice advisory subscription service for notes on the following.

- Guarantees and warranties.

Search [www.environmentdesignguide.com.au](http://www.environmentdesignguide.com.au), the Australian Institute of Architect's environmental advisory subscription service for notes on the following:

- Polyvinyl chloride (PVC).

### Specifying ESD

Regupol consists of the following sustainable product attributes:

- Regupol (Australia) rubber flooring, with post-consumer rubber content, and adhesives have low VOC content.

The following may be specified by retaining default text:

- Natural and biodegradable flooring including linoleum, cork, corklinoleum and rubber.

The following may be specified using included options:

- Scrap recycling, finishes with programs for recycling offcuts.

The following may be specified by including additional text:

- Recycled material, e.g. for PVC flooring.
- PVC finishes and adhesives low or no VOC emission.
- Planks or tiles not requiring underlays or adhesives, reducing materials for installation.
- Materials recyclable at the end of service life.

Refer to the NATSPEC TECHreport TR 01 on specifying ESD.

## 1 GENERAL

Regupol (Australia) Pty Ltd is the Australasian office and distribution network for the Regupol® and everroll® sustainable flooring product brands. The company has been operating in the region for over 25 years offering solution based products and technical services for all kinds of sustainable flooring and soundproofing solution based projects. The company is conveniently located at Smeaton Grange, NSW and offers nationwide distribution of the Regupol® and everroll® product lines.

### 1.1 RESPONSIBILITIES

#### General

Requirement: Provide rubber surface coverings supplied by Regupol (Australia) and other resilient floor finishes to substrates, as documented.

*Documented* is defined in 0171 General requirements as meaning contained in the contract documents.

### 1.2 COMPANY CONTACTS

#### Regupol (Australia) technical contacts

Website: [www.regupol.com.au](http://www.regupol.com.au)

### 1.3 CROSS REFERENCES

#### General

Requirement: Conform to the following:

- 0171 General requirements.

0171 General requirements contains umbrella requirements for all building and services worksections.

List the worksections cross referenced by this worksection. 0171 General requirements references the 018 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.

### 1.4 STANDARDS

#### General

Installation: To AS 1884.

#### Slip resistance

Classification: To AS 4586.

### 1.5 MANUFACTURER'S DOCUMENTS

#### Technical manuals

Manuals: [www.regupol.com.au](http://www.regupol.com.au)

### 1.6 INTERPRETATION

#### Definitions

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

- Acoustic underlay: A resilient material laid between the structural floor and the flooring material to provide sound isolation.
- Resilient floor coverings classification: To EN ISO 10874.

- 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 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 SUBMISSIONS

### Certification

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

### Fire performance

Fire hazard properties: Submit evidence of conformance to PRODUCTS, **FIRE PERFORMANCE**, **Fire hazard properties**.

### Operation and maintenance manuals

General: Submit manufacturer's published use, care and maintenance requirements for each type of finish.

### Products and materials

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 the following, as appropriate:

- 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.

Type tests: Submit results, as follows:

Type tests are carried out off-site. However, submission of evidence of a successful type test may be called up here for requirements specified in **SELECTIONS** or **PRODUCTS** when there are no **SELECTIONS**.

- Slip resistance to AS 4586.

Evidence of delivery: Submit delivery docket as evidence of delivery of [complete/delete]

If evidence of delivery to site is required, consider including this *Optional* style text by changing to *Normal* style text.

### 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 allow 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 m<sup>2</sup>, whichever is the greater.
- Linear accessories (including coving, skirting, stair nosing, protection strips): A piece 300 mm long.
- Welded joints: 300 mm long.

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.

Delete if supplier/installer details are not required.

**Substrate acceptance**

Applicator: Submit the installers certificate of the acceptability of the flooring substrate before commencing the installation.

**Tests**

0171 *General requirements* covers tests in **Definitions** and calls for an inspection and testing plan under **SUBMISSIONS, Tests**.

Site tests: Submit results, as follows:

- Site slip resistance test of completed installations.
- Surface pH test.
- 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.

Warranty terms: [complete/delete]

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

Regupol (Australia) provides a 5 year product warranty. Check Regupol (Australia) for warranty conditions.

**1.8 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.

**2 PRODUCTS****2.1 GENERAL****Product substitution**

Other products: Conform to **PRODUCTS, GENERAL, Substitutions** in *0171 General requirements*.

The *0171 General requirements* 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.

**Product identification**

General: Marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.

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

**2.2 FIRE PERFORMANCE****Fire hazard properties**

Critical radiant flux: Tested to AS ISO 9239.1.

Non-sprinklered buildings: The floor finish must have maximum *smoke development rate* of 750 percent-minutes tested to AS ISO 9239.1.

Refer to NATSPEC TECHnote DES 020 for further information on fire hazard properties.

## 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 smoothing and self-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.

## MOISTURE BARRIER

If testing to AS 1884 shows the moisture content of the concrete slab exceeds the requirements of AS 1884 or the manufacturer's recommendations, a moisture barrier may be required. See NATSPEC TECHnote DES 008 on the preparation of concrete substrates.

### General

Description: Water-based moisture barrier to the resilient finish and adhesive manufacturer's recommendations, if required.

### Acoustic underlay

Product: Regupol® 4515 acoustic underlay.

Thickness: [complete/delete]

Select from 3 mm, 4.5 mm or 9 mm.

## 2.4 ADHESIVES

### General

Requirement: To the resilient finishes manufacturer's recommendations.

Special adhesives may be required for antistatic and conductive applications and slabs with high moisture content.

## 2.5 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.

### Regupol (Australia) rubber

Product: [complete/delete]

Application: everroll® is a sustainable rubber flooring collection offering eight (8) distinctive product ranges with a total of 45 colours to choose from. With featured benefits of safety, comfort, resilience and strength, everroll® makes an excellent flooring choice within commercial, retail, education and community facilities. All of the everroll® flooring products are homogeneous, have no wear layer and are PVC free. The product is available in rolls, modular tiles, planks and hexagons.

Select from the following Regupol (Australia) products and nominate here or in SELECTIONS if more than one product:

- everroll® Star Range: Two (2) colours make up the everroll® Star range. Manufactured from high quality recycled rubber and EPDM chips bound with polyurethane. Available in 4 mm thickness.
- everroll® Core Range: Eight (8) colours make up the everroll® Core range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm, 8 mm and 12 mm thicknesses.

- everroll® Tone Range: Eight (8) colours make up the everroll® Tone range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm and 8 mm thicknesses.
- everroll® Vitality Range: Four (4) colours make up the everroll® Vitality range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Intensity Range: Six (6) colours make up the everroll® Intensity range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Active Range: Six (6) colours make up the everroll® Active range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Shape Range: Nine (9) colours make up the everroll® Shape range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Diamont Range: Two (2) colours make up the everroll® Diamont range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.

Thickness: [complete/delete]

Adhesive: [complete/delete]

Select from the following Regupol (Australia) products and nominate here or in **SELECTIONS** if more than one product:

- Regupol One Part Multi-Use Adhesive for dry areas.
- Regupol One Part Polyurethane Adhesive for wet areas.
- Regupol Two Part Polyurethane Adhesive – fast setting for wet areas.

Primer: [complete/delete]

Select from the following Regupol(Australia) products and nominate here or in **SELECTIONS** if more than one product:

- Regupol Primer 444 for dry areas.
- Regupol Two Part Water Based Epoxy Moisture Barrier.

Lead time: [complete/delete]

### Cork tiles

Standard: To 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/m<sup>3</sup> may be available for heavy contract use.

### Linoleum

Standard: To EN ISO 24011.

### Corklinoleum

Standard: To EN 688.

### Polyvinyl chloride (PVC)

Resilient floor covering, homogeneous: To EN ISO 10581.

Resilient floor covering, heterogeneous: To EN ISO 10582.

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

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

Resilient floor covering, with particle based enhanced slip resistance: To EN 13845.

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

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

### 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.

### 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.

General: Unbacked flexible sheet with electrical resistance.

Sheet products with antistatic properties generally refer to static dissipative or static conductive grades that provide static control. 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.

Refer to NATSPEC TECHnote DES 027 for information on impact sound insulation.

#### 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.

## 2.6 SYNTHETIC SPORTING SURFACES

### Regupol (Australia) rubber sporting surfaces

General: Resilient rubber coverings with sound and impact absorbing qualities suitable for sporting activities.

Surface finish product: [complete/delete]

Application: everroll® is a sustainable rubber flooring collection offering seven (7) distinctive product ranges with a total of 43 colours to choose from. With featured benefits of safety, comfort, resilience and strength everroll® makes an excellent flooring choice within the sports, leisure and aquatic industries. All of the everroll® flooring products are homogeneous, have no wear layer and are PVC free. The everroll® rubber flooring collection is Good Environmental Choice Australia certified for its environmental contribution. The product is available in rolls, modular tiles, planks and hexagons.

Select from the following Regupol (Australia) products and nominate here or in **SELECTIONS** if more than one product:

- everroll® Star Range: Two (2) colours make up the everroll® Star range. Manufactured from high quality recycled rubber and EPDM chips bound with polyurethane. Available in 4 mm thickness.
- everroll® Core Range: Eight (8) colours make up the everroll® Core range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm, 8 mm and 12 mm thicknesses.
- everroll® Tone Range : Eight (8) colours make up the everroll® Tone range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm and 8 mm thicknesses.
- everroll® Vitality Range: Four (4) colours make up the everroll® Vitality range. Manufactured from high quality recycled rubber and EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Intensity Range: Six (6) colours make up the everroll® Intensity range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Active Range: Six (6) colours make up the everroll® Active range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.
- everroll® Shape Range: Nine (9) colours make up the everroll® Shape range. Manufactured from high quality EPDM granulates bound with polyurethane. Available in 4 mm thickness.

Underlay: Regupol Shockpad.

Contact Regupol (Australia) for information on the range of shock and sound absorbing underlays for use under the everroll® collection of rubber flooring in sports and impact safety applications.

Lead time: [complete/delete]

## 3 EXECUTION

### 3.1 SUBCONTRACTORS

#### General

Requirement: Use specialist installers recommended by the material manufacturers.

Regupol (Australia) can assist in recommending suitable installers throughout Australia.

### 3.2 PREPARATION

#### Substrates

General: To AS 1884 Section 3.

#### 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 the *0315 Concrete finishes* and *0612 Cementitious toppings* worksections for locations where resilient finishes locations are to be installed, 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 Data Sheet Moisture in concrete and moisture-sensitive finishes and coatings.

Requirement: Do not start installation of the resilient finishes until the concrete substrate conforms to AS 1884 clause 3.1 and the adhesive and resilient finish manufacturers' recommendations.

AS 1884 sets out minimum requirements for surface pH, moisture content and planeness and smoothness of the concrete substrate which should be determined by inspection and testing. The manufacturer's recommendations may exceed these requirements. This worksection requires submission of test results.

Concrete substrate rectification: Conform to the following:

- Surface treatments: Mechanically remove any incompatible surface treatments, including the following:
  - . Sealers and hardeners.
  - . Curing compounds.
  - . Waterproofing additives.
  - . Surface coatings and contamination.

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

- Planeness, smoothness, projections: Remove projections and fill voids and hollows with a smoothing and self-levelling compound compatible with the adhesive. Allow filling or levelling compound to dry to manufacturer's recommendations.

Moisture content rectification: Provide a moisture barrier to the flooring manufacturer's recommendation.

If a moisture barrier or moisture suppression system is permitted, consider including this *Optional* text. Changes in the design mix of concrete, admixtures and concrete surface finishing techniques, and low VOC adhesives have contributed to increased failure of resilient finishes. Consult the flooring manufacturer.

Cleaning: Remove loose materials or dust.

#### Timber, plywood and particleboard substrates

Requirement: Do not start installation of the resilient finishes until the timber, plywood or particleboard substrate conforms to AS 1884 clause 3.2.

Timber, plywood and particleboard substrate rectification: 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.

#### Conditioning

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.
- 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.

### 3.3 SHEET AND TILE INSTALLATION

#### Regupol (Australia) rubber sheet flooring

General: To Regupol (Australia) 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 seam.

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.

Roller size: [complete/delete]

e.g. 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); Two coats buffable metallised emulsion polish (cushion backed sheet vinyl).

#### Scrap recycling

Participating supplier: [complete/delete]

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

### 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 0671 Painting worksection.

#### Regupol (Australia) rubber tile flooring

General: To Regupol (Australia) 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.

### 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/sealant and using a hot air welding gun or hot sealer. When the weld 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 with 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 and connect it at right angles to a 1 MΩ resistor. Connect to earth with copper tape at 20 to 30 m<sup>2</sup> intervals.

The static dissipative requirement will determine the installation method, adjust text above as necessary. 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 backup 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 **SANITARY DRAINAGE** 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 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 to 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: Provide 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**

| Property      | CJ1 | CJ2 | CJ3 |
|---------------|-----|-----|-----|
| 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 there is no insert.

**Vinyl skirting**

Select from the following.

Feather edge: Moulded PVC skirting section.

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

Flat skirting: Flat PVC skirting section.

Intended for use with carpet. It provides 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.

### Regupol (Australia) rubber skirtings

General: Cut from continuous strips of everroll® sheet. Seal floor junction with polyurethane sealer.

Sealer: [complete/delete]

e.g. Sikaflex 11FC.

### Coved skirtings

Install where a continuous surface is required e.g. Wet areas, Wet mopping, Hygiene and clean rooms. A sealant or cover mould may be necessary where the wall finish joins the door jamb profile. The width may require special consideration to provide 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 floor finish manufacturer's recommendations for 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

*Documented* is defined in 0171 *General requirements* as meaning contained in the contract documents.

### Substrate tests

Surface pH: Test concrete subfloor for suitability for the installation of resilient floor coverings to AS 1884 Appendix B.

- Maximum pH: 10.

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: Test substrate for suitability for the installation of resilient floor coverings to AS 1884 Appendix A.

- Maximum relative humidity of concrete: To AS 1884 Appendix A3.1.2 and A3.1.3.
- Moisture content of timber, plywood and particleboard subfloors: To AS 1884 Appendix A3.2.

Some manufacturers may provide products which can be used on concrete slabs with a moisture content greater than the maximum allowed by AS 1884, or that require a moisture content less than the maximum allowed by AS 1884.

### Completion tests

Slip resistance testing of completed installation: To AS 4663.

Delete if not required.

## 3.9 COMPLETION

### Protection of sheet materials

Finished floor surface: Keep traffic off floors for minimum 24 hours after laying until bonding has set or, whichever period is the longer. Avoid contact with water for minimum 7 days after laying.

### Reinstatement

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

### Cleaning

Consult resilient finish manufacturers for cleaning instructions and recommendations on polishing. 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 on 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.

Regupol (Australia) rubber: Conform to the Regupol (Australia) cleaning guidelines.

#### 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 |
|----------|----------|------------------|
|          |          |                  |
|          |          |                  |
|          |          |                  |

#### Cleaning static control 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.

## 4 SELECTIONS

**Schedules** are a way of documenting a selection of proprietary or generic products or systems by their properties. Indicate their locations here and/or on the drawings. Refer to NATSPEC TECHnote GEN 024 for guidance on using and editing schedules.

### 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/texture                             |     |     |     |
| Slip resistance classification              |     |     |     |
| Tactile indicators:<br>Directional: Product |     |     |     |
| Tactile indicators:<br>Directional: Colour  |     |     |     |
| Tactile indicators:<br>Warning: Product     |     |     |     |
| Tactile indicators:<br>Warning: Colour      |     |     |     |
| Critical radiant flux                       |     |     |     |
| Tile dimensions (mm)                        |     |     |     |

| Property      | RF1 | RF2 | RF3 |
|---------------|-----|-----|-----|
| Underlay      |     |     |     |
| Skirting/cove |     |     |     |
| Nosing        |     |     |     |

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.

Edit codes in the **Schedule** to match those on 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. Regupol Rubber, Linoleum, Cork, Vinyl (PVC), Antistatic vinyl, Conductive vinyl, Cushion backed vinyl, Vinyl counter topping.

Product: e.g. Regupol (Australia) everroll® Star, everroll® Core, everroll® Tone, everroll® Vitality, everroll® Intensity, everroll® Active, everroll® Shape, everroll® Diamont.

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

Pattern: e.g. Marbled or Plain (Linoleum, PVC).

Tile laying pattern: e.g. Checkerboard or Stretcher bond.

Thickness: e.g.:

- For Regupol (Australia) rubber: 4 or 8 mm. Other sizes available (3, 6, 10, 12 mm) subject to lead times. Check with Regupol (Australia).
- For cork: 4.75 mm or 6.3 mm (6.3 mm is recommended for concrete floors).
- For flexible terrazzo tiles: 4.76 mm.
- For flexible PVC sheet or tiles: 1.5, 2, 2.5 or 3 mm.
- For semi-rigid PVC tiles: 1.5, 2, 2.5, or 3 mm.
- For linoleum sheet or tiles: 2 or 2.5 mm.

Surface:

- For cork: Smooth surface only.
- For PVC: Normally smooth surface, but various textured or inlaid slip resistant surfaces are available. Semi-rigid tiles may have a factory-applied protective coating. Consult the manufacturer for details of the available surfaces.

Slip resistance classification: Refer to NATSPEC TECHnote DES 001, SAA HB 197 and SAA HB 198. Select the slip resistance tests and classification to suit the location and application.

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: Include the appropriate value from BCA Spec C1.10 Table 2 for the building class.

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

- PVC tiles: 300 x 300 mm is standard size.
- Portuguese cork tiles: 305 x 305 mm.
- Rubber tiles: Various sizes and formats available, check with Regupol (Australia).

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 |
|------------------------|-----|-----|-----|
| Type                   |     |     |     |
| Sport/activity         |     |     |     |
| Surface finish product |     |     |     |

| Property                       | SS1 | SS2 | SS3 |
|--------------------------------|-----|-----|-----|
| Underlay                       |     |     |     |
| Surface product                |     |     |     |
| Colour                         |     |     |     |
| Colour density                 |     |     |     |
| 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.

Edit codes in the **Schedule** to match those on drawings.

Type: e.g. Indoor or Outdoor.

Surface finish product: e.g. Regupol everroll® Star, everroll® Core, everroll® Tone, everroll® Vitality, everroll® Intensity, everroll® Active, everroll® Shape.

Underlay: Regupol (Australia) Regupol® 4515 Acoustic Underlay, Regupol® Shockpad.

Skirting: e.g. Feather edge, Flat or coved vinyl, Coved rubber, or Site formed coving.

Critical radiant flux: Include the appropriate value from BCA Spec C1.10 Table 2 for the building class.

Slip resistance classification: For selections refer to NATSPEC TECHnote DES 001, SAA HB 197 and SAA HB 198.

#### REFERENCED DOCUMENTS

The following documents are incorporated into this worksection by reference:

|               |      |  |
|---------------|------|--|
| 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 2908   |      | Cellulose-cement products  |
| AS/NZS 2908.2 | 2000 | Flat sheets  |
| AS 4586       | 2013 | Slip resistance classification of new pedestrian surface materials   |
| AS 4663       | 2013 | Slip resistance measurement of existing pedestrian surfaces  |
| AS ISO 9239   |      | Reaction to fire tests for floor coverings   |
| AS ISO 9239.1 | 2003 | Determination of the burning behaviour using a radiant heat source   |
| 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 |
| EN 651        | 2011 | Resilient floor coverings. Polyvinyl chloride floor coverings with foam layer. Specification   |
| EN 688        | 2011 | Resilient floor coverings. Specification for corklinoleum  |
| EN ISO 10581  | 2012 | Resilient Floor Coverings - Homogeneous Poly (Vinyl Chloride) Floor Covering - Specifications  |
| EN ISO 10582  | 2017 | Resilient Floor Coverings - Heterogeneous poly(vinyl chloride) floor covering - Specifications   |
| EN ISO 10595  | 2012 | Resilient floor coverings. Semi-flexible/ vinyl composition (VCT) poly(vinyl chloride) floor tiles. Specification  |
| EN ISO 10874  | 2012 | Resilient textile and laminate floor coverings. Classification   |
| EN 12104      | 2000 | Resilient floor coverings. Cork floor tiles. Specification   |
| EN 13845      | 2017 | Resilient floor coverings - Polyvinyl chloride floor coverings with particle based enhanced slip resistance - Specification  |
| EN ISO 24011  | 2012 | Resilient floor coverings- Specification for plain and decorative linoleum   |

The following documents are mentioned only in the **Guidance text**:

|                    |      |  |
|--------------------|------|--|
| 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 197         | 1999 | An introductory guide to the slip resistance of pedestrian surface materials                         |
| SAA HB 198         | 2014 | Guide to the specification and testing of slip resistance of pedestrian surfaces                     |
| BCA Spec C1.10     | 2016 | Fire resistance - Fire hazard properties   |
| CCAA Data Sheet MC | 2007 | Moisture in concrete and moisture-sensitive finishes and coatings                                    |
| NATSPEC DES 001    | 2016 | Slip resistance performance  |
| NATSPEC DES 007    | 2007 | Static control floors  |
| NATSPEC DES 008    | 2015 | Preparation of concrete substrates   |
| NATSPEC DES 020    | 2011 | Fire behaviour of building materials and assemblies  |
| NATSPEC DES 027    | 2016 | Impact sound insulation  |
| NATSPEC GEN 006    | 2007 | Product specifying and substitution  |

|                 |      |                                    |
|-----------------|------|------------------------------------|
| NATSPEC GEN 024 | 2015 | Using NATSPEC selections schedules |
| NATSPEC TR 01   | 2017 | Specifying ESD                     |