

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 09 29 00 – Gypsum Board.

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM).
 - .1 ASTM E84-10b, Standard Test Method for Surface Burning Characteristics of Building Materials.
 - .2 ASTM F710-08, Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
 - .3 ASTM F1516-08, Standard Practice for Sealing Seams of Resilient Flooring Products by the Heat Weld Method (when Recommended).
 - .4 ASTM F1913-04(2010), Standard Specification for Vinyl Sheet Floor Covering Without Backing.
- .2 Underwriters Laboratories of Canada (ULC).
 - .1 CAN/ULC S101-07, Standard Methods of Fire Endurance Tests of Building Construction and Materials.
 - .2 CAN/ULC S102-10, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.
 - .3 CAN/ULC S102.2-10, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.

1.3 SUBMITTALS

- .1 Samples.
 - .1 Submit samples in accordance with Section 01 33 00.
 - .2 Submit 300 x 300 mm sample of each type of resilient flooring specified.
- .2 Closeout Submittals.
 - .1 Provide maintenance data for incorporation into Operation and Maintenance Manual specified in Section 01 78 00.

1.4 QUALITY ASSURANCE

- .1 Qualifications.
 - .1 Skilled tradesmen to be employed by specialty company recognized and trained as approved installer by manufacturer, normally engaged in this type of work with extensive experience in installation of products specified.
- .2 Mock-ups
 - .1 Prepare mock-up of each resilient flooring installation in accordance with Section 01 45 00.

- .2 Locate mock-up installation c/w seaming as applicable and coved base on plywood sample or on site as part of final installation. Mock-up will be reviewed for workmanship, seam welding, base coving, and overall appearance.
- .3 Once approved, mock-ups will set standard of acceptance for remaining installations.

1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver all material to site in manufacturer's original unopened packaging with labels clearly identifying product name and manufacturer.
- .2 Store roll materials on end and in a dry enclosed area protected from exposure to moisture, construction activity, and direct sunlight in strict accordance with manufacturer's recommendations.
- .3 Handle all products with appropriate precautions and care as stated manufacturer's instructions.
- .4 Cleaning and Waste Management in accordance with Section 01 74 00.

1.6 SITE CONDITIONS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials.
- .2 Maintain room and material temperature at minimum 20 degrees C for at least 24 hours before, during and 48 hours after installation.
- .3 Provide continuous ventilation during and after resilient flooring installation. Run ventilation system 24 hours per day during installation and provide continuous ventilation and for 48 to 72 hours after installation.

1.7 WARRANTY

- .1 Manufacturer's Product Warranty: provide an extended warranty for Work of this Section from date of Substantial Performance of the Work to term of warranty specified. Manufacturer hereby warrants resilient flooring against excessive wear, and to be free of manufacturing and material defects subject to proper care and maintenance, and these or other observed defects and deficiencies will be repaired or replaced to the satisfaction of the Contract Administrator, and at no expense.
 - .1 Vinyl Sheet (VS).
 - .1 5 years against manufacturing and material defects.

1.8 MAINTENANCE

- .1 Comply with requirements of Section 01 78 00.
- .2 Provide maintenance materials as follows:
 - .1 Resilient Flooring (VS): 5% of floor area for each type, colour and pattern of resilient flooring installed. Sheet material to be supplied in one piece.
 - .2 Adhesives: Sufficient volume to install maintenance materials but not less than unopened 1 litre can of each type of adhesive.
- .3 Maintenance materials to be from same production run as installed materials.

Part 2 Products

2.1 MANUFACTURERS

- .1 Acceptable Products.
 - .1 Vinyl Sheet (VS).
 - .1 Johnsonite Tarkett Granit iQ.
- .2 Substitutions not permitted.
- .3 Supply product from same dye lot or production run.

2.2 MATERIALS

- .1 Vinyl Sheet (VS): 2.0 mm total thickness, non-cushioned homogeneous sheet vinyl (non-asbestos) PVC flooring in accordance with ASTM F1913, with polyurethane (PUR) reinforced wear layer composed of 50% or more binder, 2 m wide rolls, heat welded seams, colour to be selected from manufacturer's entire selection.

2.3 ACCESSORIES

- .1 Subfloor Filler and Leveler: as recommended by flooring manufacturer for use with their product.
- .2 Welding Rods: manufacturer's standard, multi-coloured to match resilient sheet flooring unless otherwise indicated.
- .3 Primers and Adhesives: water-resistant type recommended by resilient flooring manufacturer for use with their product on applicable substrates.
- .4 Cove Former: minimum 19 mm radius vinyl as recommended by manufacturer for use with their product.
- .5 Metal Edge Strips: stainless steel, mill finish with lip to extend under floor finish, shoulder flush with top of adjacent floor finish.

Part 3 Execution

3.1 PREPARATION

- .1 Sub-floor preparation is to include all required work to prepare floor for installation of products specified in this Section and meet all conditions as specified in manufacturer's current printed subfloor preparation guidelines.
- .2 Materials used in sub-floor preparation and repair to be as recommended by resilient flooring manufacturer and chemically and physically compatible with resilient flooring product.
- .3 Floors to be clean, dry, smooth, level, structurally sound and free from moisture, alkali, dust, solvents, paint, wax, oil, grease, asphalt adhesive, sealing compounds and other contaminants in accordance with ASTM F710.
- .4 Remove sub-floor ridges and bumps that would transmit through flooring materials and affect installation in accordance with ASTM F710.
- .5 Fill low spots, cracks, joints, holes and other defects with sub-floor filler approved by resilient flooring manufacturer, prior to commencement of installation of flooring materials. Thickness of filler to ensure flat floor and that installation of resilient flooring against adjacent materials (lippage) does not exceed difference of 1 mm. Steel trowel and float to leave smooth, flat, hard surface. Prohibit traffic until filler is cured and dry.
- .6 Vacuum all areas to be covered with resilient flooring immediately prior to spreading adhesive.
- .7 Prime concrete as required to flooring manufacturer's printed instructions and in accordance with ASTM F710.
- .8 At locations to receive self-coved base confirm that gypsum board walls terminate no more than 6 mm above subfloor in accordance with Section 09 29 00.

3.2 INSTALLATION

- .1 Vinyl Sheet (VS).
 - .1 Install vinyl sheet flooring in accordance with manufacturer's current printed installation manual or guidelines.
 - .2 Apply adhesive uniformly using recommended trowel in accordance with manufacturer's recommendation. Do not spread more adhesive than can be covered before initial set takes place. If adhesive over dries, remove and re-coat affected areas.
 - .3 Lay flooring with seams parallel to building lines to produce minimum number of seams in accordance with reviewed shop drawings.
 - .4 Run sheets parallel to length of room. Double cut sheet joints and continuously seal in accordance with manufacturer's printed instructions.

- .5 Rout joints and heatweld all seams with welding rods in accordance with ASTM F1516, using approved heat welding equipment. Welding rods to be trimmed neatly and left flush with surface of material. Complete trimming after cool down. Blistering or scratching of flooring material along heat welded seams will not be accepted.
 - .6 Scribe and fit tightly to door frames. Seal at edge of door frames with small, neat, continuous bead of caulking. Cut flooring and fit neatly around fixed objects.
 - .7 Terminate flooring at centerline of door in openings where adjacent floor finish or colour is dissimilar.
 - .8 Install edge strips at unprotected or exposed edges where flooring terminates or abuts another flooring material.
 - .9 Install resilient sheet flooring in same sequence as produced in factory to minimize colour variations.
 - .10 Continue flooring over areas which will be under lab furniture, cabinets, equipment, etc.
 - .11 Install flooring into floor drain collar. Install fastening clamp and strainer.
 - .12 As installation progresses and after installation, roll flooring with 45 kg roller to ensure full and consistent adhesion, roll-out adhesive ridges (trowel marks), and eliminate air pockets in accordance with manufacturer's recommendations.
 - .13 Run vinyl sheet floor grain in one direction and as per manufacturer's printed instructions.
 - .14 After installing, allow setting time of 48 hours before cleaning. Initial cleaning and preparation in accordance with manufacturer's maintenance instructions.
- .2 Self-cove base (SC).
- .1 Form cove bases in one piece of same material as resilient sheet flooring extending up wall to height as indicated.
 - .2 Install flooring material with continuous seam parallel to building walls as border coving.
 - .3 Use longest practical lengths to minimize vertical joints. Where vertical joints occur, line with joints in field.
 - .4 Install cove base with PVC cover former. At door frames and other projections taper cove former 300 mm back from frame to provide flush cove at face of frame or projection.
 - .5 Adhere cove bases to wall surfaces with same adhesive as for resilient sheet flooring.
 - .6 External (outside) Corners: form material using butterfly piece fitted neatly without any gaps. Heat weld seams in accordance with manufacturers current published installation procedures. Side fill piece (boot) with welded seam along base of self-cove not permitted.
 - .7 Internal (inside) Corners: form and cut material in line with corner fitted neatly without any gaps. Heat weld seams in accordance with manufacturers current published installation procedures.
 - .8 Install self-cove base at toe space of lab casework unless indicated otherwise.

3.3 CLEANING

- .1 Remove excess adhesive from floor, base and wall surfaces without damage. Clean floor and base surface to flooring manufacturer's printed instructions.

3.4 PROTECTION

- .1 Prohibit traffic on floor for 48 hours after installation, or according to manufacturer's instructions. Thereafter, protect new floors from damage during final stages of construction until substantial completion of project.

END OF SECTION