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**Partie 1            General**

**1.1                RELATED REQUIREMENTS**

- .1      Section 03 30 00 – Cast-in-place Concrete.
- .2      Section 05 50 00 – Metal Fabrications.
- .3      Section 06 20 00 – Finish Carpentry.
- .4      Section 06 40 00 - Architectural Woodwork.
- .5      Section 07 92 00 – Joint Sealants.
- .6      Section 07 95 13 – Expansion Joint Cover Assemblies.
- .7      Section 09 22 16 – Non-structural Metal Framing.
- .8      Section 09 30 13 – Ceramic Tiling.
- .9      Section 09 64 29 – Wood Strip and Plank Flooring.
- .10     Section 09 68 13 – Tile Carpeting.
- .11     Section 09 96 56 – Epoxidic Coatings.

**1.2                REFERENCES**

- .1      American Society for Testing and Materials International (ASTM)
  - .1      ASTM F1303-04, Standard Specification for Sheet Vinyl Floor Covering with Backing.
- .2      Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1      Material Safety Data Sheets (MSDS).
- .3      South Coast Air Quality Management District (SCAQMD), California State
  - .1      SCAQMD Rule 1113-04, Architectural Coatings.
  - .2      SCAQMD Rule 1168-05, Adhesives and Sealants Applications.

**1.3                ACTION AND INFORMATIONAL SUBMITTALS**

- .1      Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2      Provide product data in accordance with Section 01 33 00 - Submittal Procedures.
- .3      Provide samples in accordance with Section 01 33 00 - Submittal Procedures.
  - .1      Submit duplicate 300 x 300 mm sample pieces of sheet material, 300 mm long base.
- .4      Closeout Submittals:
  - .1      Provide maintenance data for resilient flooring for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Waste Management and Disposal:
  - .1 Separate waste materials for reuse/recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

#### **1.5 AMBIENT CONDITIONS**

- .1 Maintain air temperature and structural base temperature at flooring installation area above 20 degrees for 48 hours before, during and 48 hours after installation.

#### **1.1 ACCEPTABLE PRODUCTS AND MATERIALS**

- .1 Where a particular brand name is stipulated, see Instructions to Bidders for procedure for requesting approval of substitute materials and products.

#### **1.2 MAINTENANCE**

- .1 Extra Materials:
  - .1 Provide extra materials of resilient sheet flooring and adhesives in accordance with Section 01 78 00 - Closeout Submittals.
  - .2 Provide 2% of each colour, pattern and type flooring material required for project for maintenance use.
  - .3 Extra materials one piece and from same production run as installed materials.
  - .4 Identify each roll of sheet flooring and each container of adhesive.
  - .5 Deliver to Departmental Representative, upon completion of the work of this section.
  - .6 Store where directed by Departmental Representative.

#### **1.3 ACCEPTABLE PRODUCTS AND MATERIALS**

- .1 Where a particular brand name is stipulated, see Instructions to Bidders for procedure for requesting approval of substitute materials and products

### **Partie 2 Products**

#### **2.1 MATERIALS**

- .1 **LI:** Linoleum sheet flooring 2.5 mm thick to CSA A-146, composed of natural ingredients which are mixed and calendered onto a jute backing, and as follows:
  - .1 Made with linseed oil.
  - .2 Colour fastness to ASTM F1514, minimum 8 on blue scale.
  - .3 Flame spread and smoke developed to CAN/ULC S102.2.
  - .4 To ASTM F2034.
  - .5 Acceptable products:

- .1 Forbo (Real):
    - .1 Base colour (qty.: 70% of surface area) = 3236 Dark Bistre.
    - .2 Secondary colour (qty.: 25% of surface area) = 2629 Eiger.
    - .3 Accent colour (qty.: 5% of surface area) = 3242 Adriatica and/or 3225 Dandelion and/or 3421 Oyster Mountain.
  - .2 Armstrong:
    - .1 Base colour (qty.: 70% of surface area) = LP096 Obsidian.
    - .2 Secondary colour (qty.: 25% of surface area) = LP555 Constellation.
    - .3 Accent colour (qty.: 5% of surface area) = LP525 Hey Sailor and/or LP072 Goldenrod and/or LP557 Nebula.
  - .3 Johnsonite:
    - .1 Base colour (qty.: 70% of surface area) = 674 Faling Star B.
    - .2 Secondary colour (qty.: 25% of surface area) = 608 Northern Lights WG.
    - .3 Accent colour (qty.: 5% of surface area) = 651 Sea and/or 628 Sunflower and/or 793 Mirage CG.
  - .4 Materials and replacement products: in accordance with Instructions to Bidders.
- .2 **RS1**: 2 mm vinyl flooring over fibreglass matt with PVC coating.
- .1 Acceptable product:
    - .1 Omnisport Compact by Tarkett, colour from standard range selected by Departmental Representative.
    - .2 Materials and replacement products: in accordance with Instructions to Bidders.
- .3 **RS2**: Vinyl sheet flooring: to ASTM F1303, commercial. Thickness: 2.0 mm; colour selected by Departmental Representative.
- .1 Acceptable product:
    - .1 Armstrong.
    - .2 Gerflor.
    - .3 Johnsonite.
- .4 Feature strips: of same material and thickness as adjacent work, width indicated, colour selected by Departmental Representative.
- .5 Linoleum base: continuous, top set, complete with premoulded end stops and external corners.
- .1 Type: rubber.
  - .2 Model: à gorge.
  - .3 Thickness: 3.17 mm.
  - .4 Height: 101.6 mm.
  - .5 Length: minimum 2400 mm.

- .6 Colour: selected by Departmental Representative, from manufacturer's standard range.
- .6 Primers and adhesives: of types recommended by resilient flooring manufacturer for specific material on applicable substrate, above, on or below grade.
- .7 Sub-floor filler and leveller: as recommended by flooring manufacturer for use with their product.
- .8 Concrete sealer, spray applied, for permanent protection against humidity.
- .9 Metal edge strips:
  - .1 Aluminum extruded, smooth, mill finish, stainless steel with lip to extend under floor finish, shoulder flush with top of adjacent floor finish.
- .10 External corner protectors: stainless steel, type recommended by flooring manufacturer.
- .11 Edging to floor penetrations: stainless steel or aluminum, type recommended by flooring manufacturer.
- .12 Sealer and wax: type recommended by resilient flooring material manufacturer for material type and location.

### **Partie 3 Execution**

#### **3.1 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

#### **3.2 SITE VERIFICATION OF CONDITIONS**

- .1 Ensure concrete floors are clean and dry by using test methods recommended by flooring manufacturer.

#### **3.3 PREPARATION**

- .1 Clean floor and apply filler; trowel and float to leave smooth, flat hard surface. Prohibit traffic until filler cured and dry.
- .2 Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes and other defects with sub-floor filler.
- .3 Prime concrete slab or plywood sub-floor to resilient flooring manufacturer's printed instructions.

#### **3.4 APPLICATION: FLOORING**

- .1 Provide high ventilation rate, with maximum outside air, during installation, and for 48 to 72 hours after installation. If possible, vent directly to outside. Do not let contaminated air recirculate through district or whole building air distribution system. Maintain extra ventilation for at least one month following building occupation.

- .2 Apply adhesive uniformly using recommended trowel. Do not spread more adhesive than can be covered by flooring before initial set takes place.
- .3 Lay flooring to produce a minimum number of seams. Border widths minimum 1/3 width of full material.
- .4 Run sheets in direction of traffic. Double cut sheet joints and continuously seal according to manufacturer's printed instructions.
- .5 Heat weld seams of linoleum sheet flooring in accordance with manufacturer's printed instructions.
- .6 As installation progresses, and after installation roll flooring with 45 kg minimum roller to ensure full adhesion.
- .7 Cut flooring around fixed objects.
- .8 Install feature strips and floor markings where indicated. Fit joints tightly.
- .9 Install flooring in pan type floor access covers. Maintain floor pattern.
- .10 Continue flooring over areas which will be under built-in furniture.
- .11 Continue flooring through areas to receive movable type partitions without interrupting floor pattern.
- .12 Terminate flooring at centreline of door in openings where adjacent floor finish or colour is dissimilar.
- .13 Install metal edge strips at unprotected or exposed edges where flooring terminates.

### **3.5 APPLICATION: BASE**

- .1 Lay out base to keep number of joints at minimum.
- .2 Clean substrate and prime with one coat of adhesive.
- .3 Apply adhesive to back of base.
- .4 Set base against wall and floor surfaces tightly by using 3 kg hand roller.
- .5 Install straight and level to variation of 1:1000.
- .6 Scribe and fit to door frames and other obstructions. Use premoulded end pieces at flush door frames.
- .7 Cope internal corners. Use premoulded corner units for right angle external corners. Use formed straight base material for external corners of other angles.
- .8 Use toeless type base where floor finish will be carpet, coved type elsewhere.
- .9 Install toeless type base before installation of carpet on floors.
- .10 Heat weld base in accordance with manufacturer's printed instructions.
- .11 Coordinate installation of base with Section 05 50 00 – Metal Fabrications where stainless steel bases are installed.

### **3.6 FIELD QUALITY CONTROL**

- .1 Manufacturer's Field Services:

- .1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

### **3.7 CLEANING**

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 Remove excess adhesive from floor, base and wall surfaces without damage.
- .3 Clean, seal and wax floor and base surface to flooring manufacturer's printed instructions.

### **3.8 PROTECTION**

- .1 Protect new floors from time of final set of adhesive until final inspection.
- .2 Prohibit traffic on floor for 48 hours after installation.
- .3 Use only water-based coating for linoleum.

### **3.9 SCHEDULES**

- .1 Refer to schedule of finishes for location of resilient sheet flooring.

**END OF SECTION**