

**SECTION 09650 – RESILIENT FLOORING****Part 1 – General****RELATED DOCUMENTS:**

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to work of this section.

**DESCRIPTION OF WORK:**

Extent of resilient flooring and accessories is shown on drawings and in Material and Room Finish schedules.

**QUALITY ASSURANCE:**

Manufacturer: Provide each type of resilient flooring and accessories as produced by a single manufacturer, include recommended primers, adhesives, sealant and leveling compounds.

Fire test Performance: Provide resilient flooring which complies with the flooring fire test performance criteria as determined by an independent testing laboratory acceptable to authorities having jurisdiction.

<u>Flame Spread:</u>	> 0.45 watts/cm <sup>2</sup> Class I – ASTM E-648
<u>Smoke Density</u>	< 450 per ASTM E-662

**SUBMITTALS:**

Product Data: Submit manufacturer's technical data for each type of resilient flooring and accessory.

Samples for initial Selection Purposes: Submit manufacturer's standard color charts in form of actual sections of resilient flooring, including accessories, showing full range of colors and patterns available, for each type of resilient flooring required.

Samples for Verification Purposes: Submit the following samples of each type, color and pattern of resilient flooring required, showing full range of color and pattern variations.

- 12" x 12" samples of sheet flooring
- 6" long samples of resilient bases, including preformed corners
- 6" long samples of resilient edge strips
- 2 1/2" long samples of resilient flooring accessories
- Other materials, such as stair tread units, etc., as required.

Certification for Fire Test Performance: Submit certification from independent testing laboratory acceptable to authorities having jurisdiction that resilient flooring complies with fire test performance requirements.

Bond and Moisture Tests: Submit location diagrams and results. It is essential that moisture tests be taken on all concrete floors regardless of the age or grade level. Check moisture content does not exceed 2.5% by weight (calcium carbide test method) or moisture emissions do not exceed 3 lbs. Water/24 hours/1000 sq. ft. (calcium chloride test method) by conducting moisture tests, around the perimeter of the room, at columns and where moisture may be evident. Calcium chloride tests and/or calcium carbide tests must be done in accordance with ASTM F-1869 and to instructions. It is the responsibility of the owner or his agent to provide adequate moisture testing by an independent agency acceptable to the floor covering manufacturer for products specified within this document.

Maintenance Instruction: Submit two copies of manufacturer's recommended maintenance practices for each type of resilient flooring and accessory required.

**PROJECT CONDITIONS:**

Maintain minimum temperature as instructed by material manufacturers but not less than 65 ° F (18 °C) in spaces to receive resilient flooring for at least 48 hours prior to installation, during installation and for not less than 48 hours after installation. Store resilient flooring materials in spaces where they will be installed for at least 48 hours before beginning installation. Subsequently, maintain minimum temperature of 55 °F (13 °C) in areas where work is completed.

Install resilient flooring and accessories after other finishing operations, including painting, have been completed. Do not install resilient flooring over concrete slabs until the latter have been cured and are sufficiently dry to achieve bond with adhesive as determined by the resilient flooring manufacturer's recommended bond and moisture test. Do not take tests later than ten days prior to scheduled installation. Notify Architect immediately of unsatisfactory conditions.

**PART 2 – PRODUCTS****MANUFACTURER:****POLYFLOR LTD.**

(a Halstead Flooring Co.)  
P.O. Box 3, Radcliffe New Road  
Whitefield, Manchester, M45 7NR, U.K.

**DISTRIBUTOR:****GERBERT LTD.**

715 Fountain Avenue, P O Box 4944  
Lancaster, PA 17604-4944  
Phone 888-359-5466 - 717-299-5035  
Fax 717-394-1937  
Email: gerbertinfo@gerbertltd.com

Products are available through contract flooring dealers.

**RESILIENT FLOORING COLORS AND PATTERNS:**

Provide color and patterns as indicated, or if not indicated in Materials Schedule and/or drawings as selected by Architect from manufacturer's standards.

**VINYL SHEET SAFETY FLOORING:**

High vinyl content, mono-layered construction and non-directional design.

High vinyl content with backing: Provide nonlayered vinyl sheet with pattern and color extending through its full thickness and complying with the following requirements:

<u>Standards:</u>	Comply w/ASTM F 1303, ASTM E648, Class 1 and ASTM E662 Class I/A
<u>Static Load Limit:</u>	ASTM F970 (M), 750 psi
<u>Thickness:</u>	.080" (2.0mm) unless otherwise noted
<u>Sheet Dimension:</u>	6 ft. 6 in x 66 ft nominal (2 M x 20 M)
<u>Welding Thread:</u>	Vinyl thread or rod as produced by the manufacturer of sheet vinyl flooring and intended for heat sealing of joints. Color to match field of sheet vinyl floor covering unless otherwise noted.
<u>Slip Measurement:</u>	ASTM D2047 >0.8

**Polysafe Astral**

Exclusively contains **Supratec** polymer resin to give significant and sustainable maintenance benefits.

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.0mm &amp; 2.5mm (0.080" &amp; 0.10" )</u>

**Polysafe Corona**

Exclusively contains **Supratec** polymer resin to give significant and sustainable maintenance benefits

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.0mm (0.080")</u>

**Polysafe Standard**

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.0mm &amp; 2.5mm &amp; 3.5mm (0.080" &amp; 0.10" &amp; 0.138")</u>

**Polysafe Vogue Ultra**

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.0mm &amp; 2.5mm (0.080" &amp; 0.10" )</u>

**Polysafe Mosaic**

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.0mm &amp; 2.5mm (0.080" &amp; 0.10" )</u>

**Polysafe Ultimate**

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T – 50,000 cycles
Slip Measurement	ASTM D2047 >0.8
Thickness Offered	<u>2.5mm (0.10")</u>

**Polysafe Hydro & Evolve**

Performance/General	ASTM F1303
Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
Smoke Density	ASTM E662 < 450 pass
Hygiene	Contains Bacteriostat
Load	ASTM F970 (M) – 750 PSI
Abrasion Resistance	EN 649: 1996 Group T
Slip Measurement	ASTM D2047 - >0.8 - For bare feet in showers and pool surrounds
Thickness Offered	<u>2.0mm (0.080")</u>

<b><u>Polysafe Wood FX</u></b>	Performance/General	ASTM F1303
	Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
	Load	ASTM F970 (m) – 750 PSI
	Abrasion Resistance	EN 649: 1996 Group T
	Slip Measurement	ASTM D2047 >0.7
	<u>Gauge:</u>	2.0 mm
	<u>Wear Layer:</u>	.7mm
	Sheet Size	2 x 20 M (Nominal 6 ft 6 in x 66 ft)
	Thickness Offered	<u>2.0mm (0.080")</u>

<b><u>Polysafe Ecomax</u></b>	Performance/General	ASTM F1303
	Flame Spread	ASTM E648 >0.45 watts/cm <sup>2</sup> Class 1
	Smoke Density	ASTM E662 <
	Load	
	Abrasion Resistance	EN 649: 1996 Group T
	Slip Measurement	
	Thickness Offered	<u>2.0mm (0.080")</u>

**ACCESSORIES:**

Adhesive: Use only manufacturer's approved adhesive. Adhesive are available through dealers or Gerbert Limited. Submit list of manufacturer's approved adhesives to the Architect for approval. **Suggested adhesives for wet areas such as kitchens and showers: 2 part Polyurethane**

**RESILIENT FLOORING**

**09650 - 4**

**PART 3 – EXECUTION**

**INSPECTION:**

Require installer to inspect sub floor surfaces to determine that they are satisfactory. A satisfactory subfloor surface is defined as one that is smooth and free from cracks, holes, ridges, or coatings preventing adhesive bond and other defects impairing performance or appearance.

Concrete subfloors: Verify that concrete slabs comply with ASTM F710 and the following:

Slab substrates are dry and free of curing compounds, sealers, hardeners and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by flooring manufacturer.

**Do not allow resilient flooring work to proceed until subfloor surfaces are satisfactory.**

**PREPARATION:**

Prepare sub-floor surface as follows:

Inspection of existing sub-floor: A solid, dry, clean, sub floor is required for the installation of all Polyflor materials.

Use cementitious leveling and patching compounds as recommended by resilient flooring manufacturer for filling small cracks, holes and depressions and leveling subfloors. This contractor shall be responsible for leveling new or existing floors whose surface varies up to 5/16" in 10 ft. in accordance with ASTM F-710. Notify Owner, Architect and General Contractor in writing where substrate varies more than above before proceeding with the work. **Gypsum based leveling compounds will not be accepted.**

Use cementitious leveling and patching compounds as recommended by resilient flooring manufacturer for filling small cracks, holes and depression in subfloors.

Remove coatings from subfloor surfaces that would prevent adhesive bond, including curing compounds incompatible with resilient flooring adhesives, paints, oils, waxes and sealers.

Broom clean or vacuum surfaces to be covered, and inspect subfloor.

## **INSTALLATION:**

### **INSTALLATION, GENERAL:**

#### Installer verification:

All Polyflor materials must be installed by a professional flooring mechanic, preferably one who has attended an installation clinic or a Master Mechanic Training Seminar.

#### Field verification:

Field verify, prior to installation, exact layout dimensions of all seams, floor patterns, grain directions and insets with Architect. Start of work without Architect approval of field verification is not permitted and unauthorized installations shall be replaced at Contractors expense.

Existing Quarry Tiles: Inspect existing quarry/ceramic tiles for soundness and replace or fill any loose or defective tiles that have lost bond. Thoroughly degrease quarry/ceramic tiles, rinse and allow them to dry. Prime quarry tile surface as recommended by the underlayment manufacturer. Apply underlayment following manufacturer's recommended application methods. Trowel and float to leave a smooth, flat, hard surface. Protect from traffic.

## **RESILIENT FLOORING**

**09650 – 5**

Existing Vinyl tiles and black adhesive residue: Remove existing vinyl tiles and black adhesive residue. Seal remaining adhesive using a cementitious underlayment following manufacturer's written instructions.

Wooden sub-floor: Ensure wooden sub-floor is ventilated and required damp proofing is in place. Fix and replace loose boards.

Where moveable partitions are shown, install resilient flooring before partitions are erected, unless partitions are required to be covered.

Install flooring using method indicated in strict compliance with manufacturer's printed instructions. Extend flooring into toe spaces, door reveals and into closets and similar openings.

Scribe, cut and fit resilient flooring to permanent fixtures built in furniture and cabinets, pipes, outlets and permanent columns, walls and partitions.

Maintain reference markers, holes or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other non-permanent marking device.

Install flooring on covers for telephone and electrical ducts, and other such items as occur within finished floor areas. Maintain overall continuity of color and pattern with pieces of flooring installed on these covers. Tightly cement edges to perimeter of floor around covers and to covers.

Tightly adhere flooring to subbase without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks or other surface imperfections. Hand roll flooring at perimeter of each covered area to assure adhesion.

### **INSTALLATION OF SHEET FLOORING:**

Terminate flooring at centerline of door openings where adjacent floor finish is dissimilar.

Install edge strips at unprotected or exposed edges where flooring terminates

Scribe flooring to walls, columns, cabinets, floor outlets and other apparatus to produce tight joints.

Install flooring under movable partitions under open cabinets without interrupting tile/sheet pattern.

Roll flooring using a 100 Lb. roller

Lay sheet flooring to provide as few seams as possible with economical use of materials. Match edges for color shading and pattern at seams in compliance with manufacturer's recommendations.

Adhere sheet flooring to substrates using method approved by flooring manufacturer for type sheet flooring and substrate condition indicated.

Use conventional full spread adhesive method unless otherwise indicated.

Prepare seams in slip resistant vinyl sheet flooring with installer's special routing tool and blades manufactured specially for slip resistant materials; heat weld with vinyl thread in accordance with manufacturer's instructions.

Provide integral flash cove base where shown on Room Finish Schedule or drawings, including cove support strip and vinyl top edge strip; construction coved base in accordance with manufacturer's instructions.

On masonry surfaces or other similar irregular vertical substrates, fill voids between top edge strip cove cap and vertical surface with manufacturer's recommended adhesive filler material.

On all floor penetrations, cutouts and edge conditions, such as door frames, fill voids between sheet flooring and other surfaces with urethane sealant recommended by sheet flooring manufacturer.

Transition section at paving junction: Visedge VR by Howie Green is designed to securely anchor the perimeter of vinyl sheet flooring to prevent the ingress of water at the interface with the screed and to protect the ceramic floor edge profile.

## RESILIENT FLOORING

09650 - 6

Stainless Steel Drain Bars and Square and rectangle Drains and Floor Sinks: At all existing square or rectangle drains and floor sinks, install stainless steel strips with a 45 degree angled cut on each side, mechanically fastened with stainless steel screws and plastic anchors.

Stainless Steel Drain Rings: At all existing round drains, install stainless steel drain rings of type as recommended by the manufacturer of the flooring, drilled and screwed over circular cut edge of flooring, with inside diameter that will allow clean-out plate to be removed after installation. Install by drilling into substrate to accommodate lead or plastic anchors. Fasten tight with beveled head stainless steel screws.

Stainless Steel Transition Strips: At all door transitions, at raw edges of material, at edge transition to a dissimilar material, etc., stainless steel strips must be specified. At no time there should be raw edges on any resilient flooring, as this may cause water to seep under the flooring, emulsify the adhesive and separate the flooring from the sub floor.

***Failure to install and maintain Polyflor products in accordance with recommended procedures can affect the performance of the products. Information and installation booklets are available from your Distributor.***

### INSTALLATION OF ACCESSORIES:

Apply wall base to walls, columns, pilasters, casework and other permanent fixtures in rooms or areas where base is required. Install base in lengths as long as practicable, with preformed corner units. Tightly bond base to substrate throughout length of each piece, with continuous contact at horizontal and vertical surfaces.

On masonry surfaces, or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material.

Place resilient edge strips tightly butted to flooring and secure with adhesive. Install edging strips at edges of flooring which would otherwise be exposed.

Stainless Steel Accessories: Place s/s clamping ring around the drain on top of the resilient flooring, marking location of holes to be drilled, using the appropriate type and size drill bit according to the sub-floor, drill holes approximately 2-3" deep. Insert the plastic anchor into the substructure. Place a bead of polyurethane caulking compound or polyurethane adhesive underneath all stainless steel metal rings or bars prior to screwing down over the resilient flooring. Screw down the stainless steel ring or bar with the 2" 2/3 screw provided for this use.

### CLEANING AND PROTECTION:

Perform following operations immediately upon completion of resilient flooring:

Sweep or vacuum floor thoroughly. No special maintenance is required. Use an impregnated dust control instrument.

Do not wash floor until time period recommended by resilient flooring manufacturer has elapsed to allow resilient flooring to become well adhered.

Spray buffing using a white or lamb's wool pad is also a very effective and economical method of maintaining a high standard of appearance.

Damp mop floor being careful to remove black marks and excessive soil.

Remove any excess adhesive or other surface blemishes, using appropriate cleaner recommended by flooring manufacturers.

Protect flooring against damage during construction period to comply with resilient flooring manufacturer's directions.

## RESILIENT FLOORING

09650 - 7

Protect flooring against damage from rolling loads for initial period following installation by covering with plywood or hardboard. Use dollies to move stationary equipment or furnishings across floors.

Cover resilient flooring with undyed, untreated building paper until inspection for Substantial Completion.

Clean flooring not more than four days prior to date scheduled for inspections intended to establish date of Substantial Completion in each area of project. Clean flooring by method recommended by resilient flooring manufacturer.

### EXTRA MATERIALS:

Furnish extra maintenance materials to Owner. Furnish extra materials from same manufactured lot as materials installed. Deliver to Owner enclosed in protective packaging with appropriate identifying labels.

Sheet Flooring: Furnish not less than five linear yards for each type, color and pattern installed.

Resilient Accessories: Furnish not less than ten linear feet for each 500 linear feet or fraction thereof, of each type, size, color and pattern installed.

**END OF SECTION 09650**

**THIS SPECIFICATION GUIDE ISSUED IN APRIL 2005 SUPERSEDES ALL PREVIOUS POOLYFLOR AND POLYSAFE SPECIFICATION GUIDES.**