

RESILIENT FLOORING INSTALLATION

For the most current Armstrong installation recommendations, refer to the latest edition of Armstrong Engineered Installation Systems (Asian Edition 2002-3). This manual lists all of the exceptions and special conditions for the substrates as well as the complete installation system recommendations.

INSTALLATION SYSTEMS

1) Commercial Linoleum Sheet & Tile Installation System

Recommended for installing jute-backed linoleum sheet & tile floorings as listed in Figure 1. With certain exceptions and special conditions, it can be installed over approved and properly prepared substrates of concrete, suspended wood, existing resilient flooring, certain metals, polymeric poured (seamless) floors, ceramic tile, terrazzo, and marble. This system may be used on all grade levels.

- Heat-welding is required when installing over radiant-heated subfloors, in areas exposed to direct sunlight, and in areas exposed to topical moisture and/or temperature fluctuations.
- Heat-welded seam highly recommended for sheet floors and optional in tile floors - see (6) Commercial Seaming Methods.

Figure 1.

Product	Recommended Adhesive	Seams
Marmorette	S-760 full-spread	Sheet: Heat-weld
LinoLife	S-580 optional in flash cove area only	Tile: optional in heat-weld

2) Commercial Vinyl-Backed Installation System

Recommended for installing vinyl-backed commercial sheet flooring as listed in Figure 2. With certain exceptions and special conditions, it can be installed over approved and properly prepared substrates of concrete, suspended wood, existing resilient flooring, certain metals, polymeric poured (seamless) floors, ceramic tile, terrazzo, and marble. This system may be used on all grade levels.

- Heat-welded seams - see (6) Commercial Seaming Methods
- Seams sealed with S-553 - see (6) Commercial Seaming Methods

Figure 2.

Product	Recommended Adhesive	Seams
Accolade Plus	Armstrong Adhesive MP	Heat-weld
Royal		
Armalon NG / Ovation		
Cenit / Solid Merit		
Contract Interior Acoustic / Timberline Acoustic	Armstrong Adhesive MP	Heat-weld
Timberline / Contract Interior		Heat-weld & seam sealed
Translations R		

3) Luxury Vinyl Flooring Installation System

Recommended for installing Luxury Vinyl Flooring as listed in Figure 3. With certain exceptions and special conditions, it can be installed over approved and properly prepared substrates of concrete, suspended wood, certain metals, polymeric poured (seamless) floors, ceramic tile, terrazzo, and marble. This system may be used on all grade levels.

Figure 3.

Product	Recommended Adhesive	Seams
Natural Creations	Armstrong Adhesive MP Rustico - use S240 Epoxy Range	N/A

4) Vinyl Composition Tile Installation System

Recommended for Excelon Tile and Standard Excelon Tile as listed in Figure 4. With certain exceptions and special conditions, it can be installed over approved and properly prepared substrates of concrete, suspended wood, existing resilient flooring, certain metals, polymeric poured (seamless) floors, ceramic tile, terrazzo, and marble. This system

may be used on all grade levels. Tile-On installation allows installation of commercial vinyl composition tile to existing resilient flooring. With certain exceptions and special conditions, this method eliminates the time and expense of removing the old flooring before installing new tile. This method may not be used over existing tile flooring below grade.

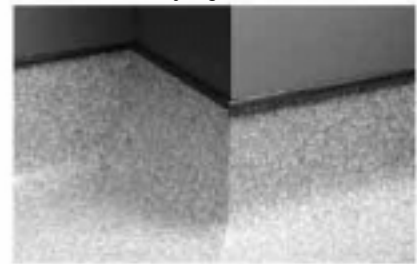
Figure 4.

Product	Recommended Adhesive	Seams
EXCELON & Standard EXCELON	Armstrong Adhesive VCT / Armstrong Adhesive MP	N/A

5) Flash Coving

Flash coving is an extension of sheet flooring material slightly up the wall, taking the place of conventional skirting materials or wooden baseboards and moldings. It is a neater, more hygienic installation and easier to keep clean because sharp corners are eliminated by a gentle radius.

A cove fillet is used as a back-up to reinforce the flooring as it bends up the wall. A wall capping strip is usually used along the wall, although it is not required when the flooring is installed under toe kicks. Seaming methods used for the rest of the installation must be used in the flash cove area.



6) Commercial Seaming Methods

- Heat-welded seams allow the use of full spread adhesive application without the need to apply special adhesive under the seams. Heat-welded seams use color-coordinated, complementary-color or, for some sheet flooring, patterned welding rods.
- The Securabond method requires S-235 Adhesive in the field area. Seam area are chemically bonded with S-200 Epoxy Adhesive, rendering them virtually invisible and offering a monolithic look. This chemical bonding prevents dirt and moisture from penetrating beneath the seams, ensuring a good bond between the sheet and the substrate.
- Seams sealed with S-553 require a full spread of S-575 Adhesive without the need to apply special adhesive under the seam. The S-553 Seam Sealing Adhesive is applied to the surface of the seam. This seaming method is limited to Timberline.

7) Skirting Installation System

Armstrong vinyl flooring accessories color-integrated skirting is recommended over most clean, dry structurally sound interior wall surfaces.

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SUBFLOORS

The condition of the subfloor not only has an important bearing on the appearance of the finished installation, but can dramatically affect the life and serviceability of the floorcovering. It is essential, therefore, that the subfloor be dry, hard, rigid, smooth, level, clean and free of dust and grease.

1) Concrete subfloors

New and existing concrete subfloors should meet the requirements of the latest edition of ASTM F710, "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring." The design of subfloor must also meet both the static and dynamic load requirements for the intended use of the space. **IMPORTANT: Regardless of the type of concrete or other cement-like material used as a base for resilient flooring, in the event of underlayment failure, the responsibility for warranties and/or performance guarantees rests with the subfloor subcontractor, not with the manufacturer of resilient flooring.**

Concrete subfloors must be cured and completely dry. The surface must be steel trowelled to a smooth dense surface free of trowel marks and irregularities.

Concrete slabs in contact with fill, hardcore or the ground must have a damp-proof membrane to prevent entry of moisture. Water proofing additives and curing compounds do not replace the damp-proof membrane. New slabs should dry for at least one month per 25mm thickness.

Care must be taken to ensure that the surface of the concrete is free of parting of curling compounds, oil, grease, paint, dust and any other substances, which may prevent the adhesive from forming a secure bond. The surface of the concrete must be smooth and level, completely free of cracks, holes and protrusions.

If the surface is not satisfactory it should be repaired and levelled with a cementitious underlay, applied according to manufacturers' recommendations.

When curing compounds, hardeners, sealers, or parting compounds have been used, they have to be completely removed by sanding, sandblasting or grinding prior to the installation of materials as this will impair the bond of the adhesive. A MOISTURE TEST SHOULD ALWAYS BE CARRIED OUT PRIOR TO INSTALLATION.

2) Heated Subfloors

Flooring material can be installed over heated subfloors. However, it is imperative that the temperature at the surface of the slab does not exceed 28°C. Prior to the installation, heating should be turned on for a number of days to remove all traces of residual dampness that may be present in the subfloor. The heating should be turned on 48 hours prior to and during the installation and should not be turned on until 48 hours after the installation is completed, in order to allow the adhesive to set.

3) Timber Subfloors

All timber subfloors must have at least 450mm of good cross ventilation under the floor to prevent distortion and movement of flooring members as well as excessive movement of underlay. New timber subfloor should be rigid, sound and constructed of seasoned timber and free from excessive cupping warping.

Old timber subfloors should have all loose boards re-nailed and badly worn or damaged boards must be replaced. If necessary, sand floor to a level finish without undulations. Overlay subfloor with hardboard or approved fibrous cement vinyl flooring underlayment. The underlay sheets must be fastened at 75mm intervals around all sides, 10mm from edges, and at 100mm to 150mm intervals throughout the body of the board.

The sheet shall be fastened by 25mm x 2mm ring-grooved nails, or 22mm chisel point staples for hardwood subfloors and divergent point staples for softwood subfloors. Hardboard must be laid smooth side up and all joints should be staggered. All joints and any raised edges of the underlay shall be sanded smooth and level. The sanded areas must be sealed prior to the installation of the floorcovering as recommended by the manufacturer.

Underlay must be installed over structural particleboard using the adhesive and nailing fixing system specified by the underlay manufacturer.

4) Existing Resilient Floors

Armstrong recommends the removal of existing resilient floors. If this is not practical, adequate care should be taken to ensure the existing resilient floor is to an acceptable standard to receive new floorcoverings.

The existing resilient floor must be smooth (not textured, or embossed, enough to show through the final installation), completed and firmly bonded and properly installed on recommended subfloors. Existing resilient floor must not be cushioned, and must have no evidence of moisture, alkaline salts or hydrostatic pressure. Polish and other finishes should be removed from existing floorcovering by thorough stripping. Indentations and damaged areas should be replaced or repaired.

Installation over existing resilient floors reduces resistance to indentations.

NOTE: Existing resilient flooring may contain asbestos fibres, which are not readily identifiable. Regulations may require that the material be tested to determine asbestos content. It is the obligation of the installer to ensure the practices used are safe, without risk to health, and meet all legal requirements.

ADDITIONAL OPEN TIME OF FLOORING ADHESIVE MAY BE REQUIRED TO REDUCE ENTRAPMENT OF AIR UNDER FLOORING MATERIAL WHEN LAYING OVER EXISTING RESILIENT FLOORS.

5) Expansion Joints

Armstrong does not recommend that resilient floorcoverings be installed across expansion joints. Various expansion joint covers are available and should be specified by the architect or agreed between the contractor and the purchaser.

6) Job Conditions

Temperatures in areas to be covered should be maintained at a minimum 18°C for 48 hours prior to, during and after installation. Please note that cold subfloors have considerable influence on the open time of flooring adhesive. For detailed job conditions should refer to [Armstrong Engineered Installation Systems \(Asian Edition 2002-3\)](#).