Adhesives, Trowel Notchings, Seam Treatments and Grout
A. WORK AREA PREPARATION
When applying adhesives, be sure to follow all instructions regarding the need for proper ventilation of the work area. Good work hygiene practices require careful review of all safety and health warnings and instructions contained in labels, specifications, instruction sheets, material safety data sheets, and other similar publications. See the Work Site Environment statement at the end of Chapter II.

B. ADHESIVE APPLICATION
Most flooring adhesives are applied with a notched trowel. The size of the notching is important because it controls the amount of adhesive applied. Notches that are too large spread too much adhesive. This can cause excessive indentations, trowel ridge show-through or bleeding at tile joints. Always check the adhesive label for the proper notching.

Substrates must be dry, clean, smooth, and free from paint, varnish, wax, oils, solvents, and other foreign matter. Dust and dirt on the subfloor will hamper the application and bonding of the new adhesive.

Check the amount of working time and open time for each adhesive. Open time is the amount of time recommended for the adhesive to set before it is covered with the flooring. Working time for tile is the amount of time from when the adhesive is set until the tile will no longer bond. Working time for sheet flooring is the amount of time from when the flooring is laid in place until all cutting and fitting is complete. When rolling is recommended, it must be completed within the working time of the adhesive. Both open time and working time are affected by temperature, humidity, and porosity of the subfloor.

There are two ways to fold the material back to spread the adhesive after the room has been fit: (1) lapping and (2) tubing. To lap the material, pull the material from the end of the sheet and spread the adhesive over one half of the room. Repeat the procedure for the other half of the room. To tube the material, pull the material back from the side of the sheet or tube it lengthwise. You may use both tubing and lapping on some installations.

Roll all sheet goods that are fully bonded with a 100-lb. roller immediately after placing them in the adhesive and again when the job is completed. Start in the center of the sheet and roll back and forth across the sheet to each end. Then reverse this procedure. Starting in the center of the sheet, roll lengthwise from center to edge. Rolling is a very important part of each installation. The bond is not as good if the material is not rolled down into the adhesive. Most Armstrong tile products do not require rolling.
C. ENVIRONMENTAL PRODUCT INFORMATION

Armstrong provides numerous products to help meet environmental criteria unique to adhesives and installation materials. You can use Armstrong adhesives with confidence, knowing that they have been formulated to provide the working characteristics your installers expect from Armstrong installation products.

Specific characteristics of each product are listed on the product label. The adhesives below all have the following characteristics:

- Low in VOCs (meet the requirements of SCAQMD Rule 1168)
- Nonflammable
- Ammonia-free and low odor
- Contain low or no organic solvents
- Contain no reportable hazardous substances (per current regulations)

This current list of installation products includes:

- S-235 Premium Sheet Flooring Adhesive
- S-254 Residential Sheet Flooring Adhesive
- S-288 Flooring Adhesive
- S-289 Flooring Adhesive
- S-580 Flash Cove Adhesive
- S-599 Premium Vinyl-Backed Flooring Adhesive
- S-700 Thin Spread Floor Tile Adhesive
- S-750 Premium Floor Tile Adhesive
- S-780 Linoleum Adhesive
- S-761 Seam Adhesive
- S-185 Latex Primer and Additive
D. TROWEL NOTCHINGS

S-891 Notched Steel Trowel (fine notched side)
S-892 with S-894 Replacement Blades

Fine Notching: 1/32” deep, 1/16” wide, spaced 5/64” apart

For:  S-202  S-543
      S-240  S-599
      S-288  S-700
      S-515  S-750
      S-525
      S-235  S-254  
                          over non-porous subfloors
                          or existing resilient floors

S-891 Notched Steel Trowel (regular notched side)
S-892 with S-893 Replacement Blades

Regular Notching: 1/16” deep, 1/16” wide, spaced 3/32” apart

For:  S-235  over porous subfloors
      S-254  over porous subfloors
      S-780
      S-240  for Rubber Tile and Linoleum
                          over porous subfloors

Smooth Edge Trowel

For:  S-184
      S-194
      S-199

S-53 Notched Spreader
“L” Disposable Spreader

Notching: 1/16” deep, 1/16” wide, spaced 3/32” apart

For:  S-725
      S-240  Rubber Tile

S-52 Notched Spreader
“S” Disposable Spreader

Notching: 1/32” deep, 1/16” wide, spaced 5/64” apart

For:  S-240
S-135 VapArrest Professional Moisture Retardant System

**CAUTION**

S-135 EYE AND SKIN IRRITANT

For use with the following Installation Systems:
- Laminate Flooring
- Fiberglass-Reinforced (Modified Loose Lay Method)
- ToughGuard II (Modified Loose Lay Method)
- Luxe Plank

**DESCRIPTION:**

Type: Two-part cross-linked epoxy resin

Color: Pale Red

Mixing: Stir well before using. Using a power mixer, mix both components A & B in the pail containing part A (1/2" drill and paint or plaster paddle). Mix thoroughly for 2 minutes eliminating all color/clear streaks. Do not over mix.

Applicator: Medium nap paint roller with extension handle

Spread Rate: 270 sq. ft./gallon unit at 6 mil using a medium nap roller

Units: Each unit (ctn) contains 1 part A & 1 part B Quart, 1.1 Gallon, 2.2 Gallon

Removal from Surface: Remove wet or uncured materials with mineral spirits

Advantages:
- Reduces water vapor transmission up to 75% (to less than 3 lbs./1000 sq. ft./24 hrs)
- Reduces potential for mold & mildew growth
- No additional prep time, easy to apply, rapid curing; ready to install next day
- Used over cementitious leveling compounds, environmentally friendly
- Low odor, no VOCs & low perm rating

Shelf Life: 1 year, unopened

Freeze/Thaw Stable: Yes, to 10° F (-12° C)

VOC Content: Zero g/L; calculated and reported, SCAQMD 1168

Open Time: 8-24 hours when tack free

Working Time: 60 minutes (working times may vary based on job conditions, substrates, temperature, and humidity)

Substrates: Concrete, properly mixed and applied Portland Cement-based underlayments, primed, properly prepared poured-in-place gypsum subfloors (dust free)
S-202 Static Dissipative Tile Adhesive

**CAUTION** S-202  EYE AND SKIN IRRITANT

STIR WELL BEFORE USING.

For use with the following Installation System:
- Static Dissipative Tile (SDT)

**DESCRIPTION:**
- **Type:** Water-based resin
- **Color:** Black
- **Taggants:** None
- **Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel with S-894 Fine Notch Blade
  - Fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch
- **Coverage:** Approximately 150 sq. ft. /gal. (14 sq. m)
- **Units:** 1 gallon (3.78 L) and 4 gallons (15.14 L)
- **Open Time:** Until dry to touch, 60 minutes or more
- **Working Time:** Up to 6 hours (working times may vary based on job conditions, substrates, temperature, and humidity)
- **Shelf Life:** 6 months, unopened
- **Freeze/Thaw Stable:** No, keep from freezing
- **VOC Content:** < 50 g/L; calculated and reported, SCAQMD 1168
- **Clean Up:** Wet or Dry – clean, white cloth and mineral spirits
- **Subfloors:** All grade levels of concrete and suspended wood
  - Ceramic, terrazzo, polymeric poured, and certain metal subfloors when properly prepared with S-194
  - Radiant Heated subfloors where the surface temperature does not exceed 85° F (29° C)
- **Advantages:** Moisture and alkali resistant
  - Long working time (up to 6 hours)
S-235 Residential Flooring Adhesive

**CAUTION** S-235  **EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation Systems:
- Commercial Felt-Backed
- Residential Felt-Backed

**DESCRIPTION:**

**Type:** Water-based rubber resin

**Color:** Cream

**Taggants:** Yes – 50% yellow and 50% orange

**Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel with S-893 Regular Notch or S-894 Fine Notch Blades

- Porous subfloors:
  - Regular notch – (1/16" deep, 1/16" wide, 3/32" apart), U-notch
- Nonporous subfloors or existing resilient floors:
  - Fine notch – (1/32" deep, 1/16" wide, 5/64" apart), U-notch

**Coverage:**
- Regular notch: 125-150 sq. ft. /gal (12-14 sq. m.)
- Fine notch: 225-275 sq. ft. /gal (20-25 sq. m.)

**Units:**
- 1 quart (0.946 L); 1 gallon (3.78 L) and 4 gallons (15.14 L)

**Open Time:**
- Porous subfloors (wood, concrete) – 0 to 20 minutes
- Nonporous subfloors (existing flooring) – 10 to 20 minutes

**Working Time:** Up to 40 minutes (working times may vary based on job conditions, substrates, temperature and humidity)

**Shelf Life:** 1 year, unopened

**Freeze/Thaw Stable:** Yes, to 10° F (-12° C)

**VOC Content:** 4 g/L; calculated and reported, SCAQMD 1168

**Clean Up:**
- Wet – clean, white cloth with neutral detergent and water
- Dry – clean, white cloth and mineral spirits

**Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, lead, copper, brass, bronze, polymeric poured floors, and approved suspended wood

- Radiant heated subfloors where the surface temperature does not exceed 85° F (29°C)
Advantages:

- Strong, fast initial grab (helps prevent edge curl)
- Moisture and alkali resistant
- Excellent bond integrity
- Solvent-free and low odor
S-240 High Performance Epoxy Flooring Adhesive

**CAUTION**

S-240

**EYE AND SKIN IRRITANT**

**MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION**

**VAPOR HARMFUL**

**MIXING PART A AND PART B MAY GENERATE HEAT BUILD-UP**

For use with the following Installation Systems:

- Commercial Linoleum
- Vinyl Composition Tile (Safety Zone in Specialty Areas)
- Commercial Luxury Vinyl Tile
- Commercial Vinyl-Backed
- Commercial Inlaid
- Commercial Stair Tread and Rubber Tile

**NOTICE – DO NOT USE AT TEMPERATURES ABOVE 85°F (29°C)**

**DESCRIPTION:**

**Type:**
Two-part epoxy

**Color:**
Part A – Light Gray; Part B – Beige

**Taggants:**
Blue

**Trowel:**
S-891 Notched Steel Trowel – Fine notching

S-892 Replaceable Blade Trowel with S-894 Fine Notch Blade

Fine notch – (1/32” deep, 1/16” wide, 5/64” apart), U-notch

For Rubber Tile

S-891 Notched Steel Trowel – Regular notching

S-892 Replaceable Blade Trowel with S-893 Regular Notch Blade

Regular notch – (1/16” deep, 1/16” wide, 3/32” apart), U-notch

**Note:** For linoleum and vinyl sheet products, trowel ridges must be rolled out using a 3/16” nap paint roller

**Coverage:**
170-190 sq. ft./gallon (15-17 sq. m.)

**Units:**
1/2 gallon (1.89 L); 1 gallon (3.78 L) – Both are two-part units

**Open Time:**
Approximately 10-20 minutes (Set-in-wet)

**Working Time:**
Up to 1 hour (working times may vary based on job conditions, substrates, temperature and humidity)

**Shelf Life:**
2 years, unopened

**Freeze/Thaw Stable:**
Yes, to 10° F (-12° C)
**VOC Content:** Part A and Part B - 10 g/L; calculated and reported, SCAQMD 1168

**Clean Up:** Wet – clean, white cloth with neutral detergent and water
Dry – clean, white cloth and mineral spirits

**Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, lead, polymeric poured floors, and approved suspended wood
Radiant heated subfloors where the surface temperature does not exceed 85° F (29° C)

**Advantages:** Moisture and alkali resistant
Suitable for use with most Armstrong commercial installation systems
**S-254 Residential Flooring Adhesive**

**CAUTION** S-254 EYE AND SKIN IRRITANT

STIR WELL BEFORE USING.

For use with the following Installation System:
- Residential Felt-Backed

**DESCRIPTION:**

- **Type:** Water-based rubber resin
- **Color:** Tan
- **Taggants:** Yes – 50% yellow and 50% orange
- **Trowel:**
  - S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel with S-893 Regular Notch or S-894 Fine Notch Blades
  - Porous subfloors: Regular notch – (1/16” deep, 1/16” wide, 3/32” apart), U-notch
  - Nonporous subfloors or existing resilient floors: Fine notch – (1/32” deep, 1/16” wide, 5/64” apart), U-notch
- **Coverage:**
  - Regular notch: 125-150 sq. ft. /gal (12-14 sq. m.) – 14-17 sq. yd. /gal
  - Fine notch: 225-275 sq. ft. /gal (20-25 sq. m.) – 25-31 sq. yd. /gal
- **Units:** 1 quart (0.946 L); 1 gallon (3.78 L) and 4 gallons (15.14 L)
- **Open Time:** Porous subfloors – 0 to 20 minutes
  - Nonporous subfloors – 10 to 20 minutes
- **Working Time:** Up to 20 minutes over concrete; up to 60 minutes over wood and other substrates (working times may vary based on job conditions, substrates, temperature, and humidity)
- **Shelf Life:** 1 year, unopened
- **Freeze/Thaw Stable:** Yes, to 10° F (-12° C)
- **VOC Content:** 5 g/L; calculated and reported, SCAQMD 1168
- **Clean Up:** Wet – clean, white cloth with neutral detergent and water
  - Dry – clean, white cloth and mineral spirits
Subfloors: All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood; primed, poured-in-place gypsum subfloors

Radiant heated subfloors where the surface temperature does not exceed 85° F (29° C)

Advantages: For Full Spread and Perimeter Plus systems
Moisture and alkali resistant
Strong, early grab
Nonflammable, ammonia-free and low odor
Contains low or no organic solvents
STIR WELL BEFORE USING.

For use with the following Installation Systems:
- Fiberglass-Reinforced Sheet Flooring
- ToughGuard II
- Alterna
- Residential LVT Planks
- Commercial Luxury Vinyl Tile Flooring

DESCRIPTION:

Type: Water-based rubber resin
Color: Creamy beige
Taggants: Yes – green glitter
Trowel: S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; Fine notch – (1/32" deep, 1/16" wide, 5/64" apart), U-notch
Coverage: 250-300 sq. ft./gallon (23-28 sq. m.)
Units: 1 gallon (3.78 L) and 4 gallons (15.14 L)
Open Time: Porous substrates – Set-in-wet: Minimum 10-20 minutes
Nonporous substrates – Dry-to-touch: 30 minutes or more
Working Time: Up to 1 hour (working times may vary based on job conditions, substrates, temperature, and humidity)
Shelf Life: 2 years, unopened
Freeze/Thaw Stable: Yes, to 10° F (-12° C)
VOC Content: < 14 g/L; calculated and reported, SCAQMD 1168
Clean Up: Wet – clean, white cloth with neutral detergent and water
Dry – clean, white cloth and mineral spirits
Subfloors: All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood
Advantages: For Full Spread Installation Systems
Moisture and alkali resistant
Strong, early grab
Armstrong Guaranteed Installation System (AGIS)
Guarantee included as part of Armstrong Installation System when installing Armstrong vinyl-back sheet flooring and residential Luxury Vinyl Tile
Nonflammable, ammonia-free and low odor; contains low or no organic solvents
Contains no reportable hazardous substance (per current regulations)
S-289 Releasable Flooring Adhesive

**CAUTION**

S-289 EYE AND SKIN IRRITANT

STIR WELL BEFORE USING.

For use with the following Installation Systems:
- Fiberglass Reinforced Sheet
- Residential LVT Planks
- ToughGuard II

DESCRIPTION:

**Type:** Water-based rubber resin

**Color:** Creamy beige

**Taggants:** Yes – 50% yellow and 50% orange

**Paint Roller:** Smooth, 1/4” nap paint roller

**Trowel (permanent):** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch

**Coverage:**
- 275-325 sq. ft. (30-36 sq. yds.)/gal (25-30 sq. m.) (paint roll)
- 250-300 sq. ft. /gal (23-28 sq. m.) (trowel)

**Units:**
- 1 gallon (3.78 L), 4 gallons/ctn.; weight (38 lbs./ctn.); 45 ctns. / pallet
- 4 gallon (15.14 L), 1 pail, weight (37.5 lbs.) (17 kg.); 48 pails / pallet

**Open Time:** For all approved subfloors

Allow the adhesive to set open until dry-to-touch, approximately 45 to 60 minutes; the adhesive should be tacky with no transfer to fingers

**Working Time:** Unlimited

**Shelf Life:** 1 year, unopened

**Freeze/Thaw Stable:** Yes, to 10° F (-12° C)

**VOC Content:** 11 g/L; calculated and reported, SCAQMD 1168

**Clean Up:**
- Wet – clean, white cloth with neutral detergent and water
- Dry – clean, white cloth and mineral spirits

**Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood
Advantages:

- Moisture and alkali resistant
- Fast application with roller
- Easy to repair and remove
- AGIS Guarantee
- Nonflammable, ammonia-free and low odor
- Contains low or no organic solvents
S-515 Clear Thin Spread Tile Adhesive

⚠️ CAUTION ⚠️ S-515 EYE AND SKIN IRRITANT

STIR WELL BEFORE USING.

For use with the following Installation System:
- Vinyl Composition Tile

DESCRIPTION:

Type: Water-based/latex resin
Color: Cream; contains visible taggants
Taggants: Yes – 50% yellow and 50% orange
Trowel: S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch
Coverage: 350-400 sq. ft./gal (33-37 sq m.)
Units: 1 gallon (3.78 L) and 4 gallons (15.14 L)
Open Time: Dry-to-touch: 30 minutes or more
Working Time: Up to 24 hours (working times may vary based on job conditions, substrates, temperature, and humidity)
Shelf Life: 1 year, unopened
Freeze/Thaw Stable: Yes, to 10° F (-12° C)
VOC Content: Zero g/L; calculated and reported, SCAQMD 1168
Clean Up: Wet – clean, white cloth with neutral detergent and water
Dry – clean, white cloth and mineral spirits
Subfloors: Concrete on all grade levels. Existing asphalt “cutback” residue that is smooth with no ridges or puddles evident. Suspended wood and wood underlayments. Existing well-bonded resilient flooring. Not perimeter-bonded or cushion-backed. Ceramic tile, terrazzo, marble, and polymeric-poured floors. Properly mixed and applied powder underlayment and embossing levelers. Primed, poured-in-place gypsum subfloors. Radiant-heated subfloors where the surface temperature does not exceed 85° F (29° C).
Advantages:
24-hour working time
Dries clear (allows chalk lines to show through)
Excellent initial grab
Moisture and alkali resistant
Suitable for use with VCT and Safety Zone over high moisture concrete slabs
Can be used over “cutback” adhesive residue
S-525 Clear Thin Spread BioBased Tile Adhesive

**CAUTION**

**S-525**  **EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation Systems:
- Vinyl Composition Tile
- BioBased Tile

**DESCRIPTION:**

**Type:** Water-based/latex

**Color:** Beige; dries clear

**Taggants:** None

**Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch

**Coverage:** 275-325 sq. ft. /gal (25.5-30.2 sq. m. / 3.78 L)

**Units:** 1 gallon (3.78 L) and 4 gallons (15.14 L)

**Open Time:** Dry-to-touch: 20 minutes or more

**Working Time:** Up to 24 hours (working times may vary based on job conditions, substrates, temperature, and humidity)

**Shelf Life:** 2 years, unopened

**Freeze/Thaw Stable:** Yes, to 20° F (-7° C)

**VOC Content:** 16 g/L; calculated and reported, SCAQMD 1168

**Clean Up:** Wet – clean, white cloth with neutral detergent and water

**Dry** – clean, white cloth and mineral spirits

**Subfloors:** Concrete on all grade levels. Existing asphalt “cutback” residue that is smooth with no ridges or puddles evident. Suspended wood and wood underlayments. Existing well-bonded resilient flooring; not perimeter-bonded or cushion-backed. Ceramic tile, terrazzo, marble, and polymeric-poured floors. Properly mixed and applied powder underlayment and embossing levelers. Primed, poured-in-place gypsum subfloors. Radiant-heated subfloors where the surface temperature does not exceed 85° F (29° C).
Advantages:

- 24-hour working time
- Dries clear
- Excellent initial grab
- Moisture and alkali resistant
- Suitable for use with VCT, BioBased Tile, and Safety Zone over high moisture concrete slabs
- Can be used over “cutback” adhesive residue (reduces subfloor preparation time) except when installing VCT or Safety Zone over high moisture slabs
- One step installation, no primer required
**S-543 Premium Plus Commercial Vinyl Sheet Flooring Adhesive**

**CAUTION**

**S-543**  
**EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation Systems:
- Commercial Vinyl-Backed
- Commercial Heterogeneous and Inlaid
- Commercial Felt-Backed
- Commercial Luxury Vinyl Tile
- Residential LVT Plank

**DESCRIPTION:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type:</strong></td>
<td>Water-based/synthetic polymer</td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>White; contains visible taggants</td>
</tr>
<tr>
<td><strong>Taggants:</strong></td>
<td>50% Yellow and 50% Orange</td>
</tr>
<tr>
<td><strong>Trowel:</strong></td>
<td>S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32” deep, 1/16” wide, 5/64” apart), U-notch</td>
</tr>
<tr>
<td><strong>Coverage:</strong></td>
<td>225-275 sq. ft. (25-30 sq. yds.) /gal (21-26 sq. m.)</td>
</tr>
<tr>
<td><strong>Units:</strong></td>
<td>1 gallon (3.78 L) and 4 gallons (15.14 L)</td>
</tr>
</tbody>
</table>
| **Open Time:**    | Porous substrates – Set-in-wet: Minimum 10-20 minutes  
|                   | Nonporous substrates – Dry-to-touch: 30 minutes or more |
| **Working Time:** | Up to 8 hours (working times may vary based on job conditions, substrates, temperature, and humidity) |
| **Shelf Life:**   | 1 year, unopened                                 |
| **Freeze/Thaw Stable:** | Yes, to 10° F (-12° C)                        |
| **VOC Content:**  | Zero  g/L; calculated and reported, SCAQMD 1168 |
| **Clean Up:**     | Wet – clean, white cloth with neutral detergent and water  
|                   | Dry – clean, white cloth and mineral spirits       |
| **Subfloors:**    | All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood |
Advantages:

- Increased working time
- High bond strength
- Can be used in all commercial vinyl-backed sheet flooring applications
- Strong initial grab for “set-in-wet” sheet installations
- Superior moisture and alkali resistance
- Anti-fungal/mold protection
S-580 Flash Cove Adhesive

**CAUTION**

S-580  **EYE AND SKIN IRRITANT**

STIR WELL BEFORE USING.

For use with the following Installation Systems:
- Commercial Vinyl-Backed
- Commercial Heterogeneous and Inlaid
- Commercial and Residential Felt-Backed
- Commercial/Residential Linoleum Sheet
- Fiberglass-Reinforced Sheet (Full spread application)
- ToughGuard II

**DESCRIPTION:**

**Type:** Water-based/resin; pressure-sensitive; acrylic base

**Color:** White

**Taggants:** Contains no visible taggants

**Applicator:** Brush or roller

**Coverage:** 200–250 sq. ft./half-gallon (18–23 sq. m.)

**Units:** Half-gallon (1.89 L)

**Open Time:** Dry to pressure sensitive state; minimum of 20–30 minutes

**Working Time:** Unlimited (working times may vary based on job conditions, temperature, humidity, air circulation, etc.)

**Shelf Life:** 1 year, unopened

**Freeze/Thaw Stable:** Yes, to 10° F (-12° C)

**VOC Content:** Zero g/L; calculated and reported, SCAQMD 1168

**Clean Up:**
- Wet – clean, white cloth with neutral detergent and water
- Dry – clean, white cloth and mineral spirits

**Walls:** Standard, structurally sound

**Advantages:**
- Moisture and alkali resistant
- Excellent grab
- AGIS Guarantee
- Nonflammable, ammonia-free and low odor
- Contains low or no organic solvents
S-599 Premium Commercial Vinyl Sheet Flooring Adhesive

**CAUTION** S-599  **EYE AND SKIN IRRITANT**

STIR WELL BEFORE USING.

For use with the following Installation Systems:
- Commercial Vinyl-Backed
- Commercial Heterogeneous and Inlaid
- Commercial Felt-Backed

**DESCRIPTION:**

- **Type:** Water-based resin
- **Color:** Creamy beige
- **Taggants:** Yes – blue glitter
- **Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch
- **Coverage:** 250–300 sq. ft./gallon (23-28 sq. m.)
- **Units:** 1 gallon (3.78 L) and 4 gallons (15.14 L)
- **Open Time:** Porous substrates – Set-in-wet: Minimum 10-20 minutes
  Nonporous substrates – Dry-to-touch: 30 minutes or more
- **Working Time:** Up to 1 hour (working times may vary based on job conditions, temperature, humidity, air circulation, etc.)
- **Shelf Life:** 2 years, unopened
- **Freeze/Thaw Stable:** Yes, to 10° F (-12° C)
- **VOC Content:** < 14 g/L; calculated and reported, SCAQMD 1168
- **Clean Up:** Wet – clean, white cloth with neutral detergent and water
  Dry – clean, white cloth and mineral spirits
- **Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors and suspended wood
  Radiant Heated subfloors where the surface temperature does not exceed 85° F (29° C)
Advantages:
For Full Spread and Perimeter Plus systems
Moisture and alkali resistant
Strong, early grab
AGIS Guarantee
Nonflammable, ammonia-free, and low odor
Contains low or no organic solvents
S-693 Premixed Sanded Acrylic Grout

CAUTION

S-693 EYE AND SKIN IRRITANT

For use with the following Installation System:
- Groutable tile installation systems

DESCRIPTION:

Type: Premixed sanded acrylic grout
Color: Available in a variety of colors
Taggants: None
Float: Hard epoxy
Coverage:
- 350 sq. ft./gal. (32 sq. m.) with 1/16" joint spacing
- 325 sq. ft./gal. (30 sq. m.) with 1/8" joint spacing
- 275 sq. ft./gal. (25 sq. m.) with 3/16" joint spacing
- 225 sq. ft./gal. (21 sq. m.) with 1/4" joint spacing
Units: 1 gallon (3.78 L)
Open Time: Approximately 3 to 8 minutes
Working Time: Up to 10 minutes (working times may vary based on job site conditions, substrates, temperature, and humidity)
Shelf Life: 2 years, unopened
Freeze/Thaw Stable: No, keep from freezing
VOC Content: 15 g/L; calculated and reported, SCAQMD 1168
Clean Up: Use clear cool water and a sponge. Do not allow grout to dry on face.
Advantages:
- Premixed-ready to use
- Resists cracking
- Color consistent
- Stain resistant
- Easy clean up
Caution: S-700 EYE AND SKIN IRRITANT

STIR WELL BEFORE USING.

For use with the following Installation Systems:
- Vinyl Composition Tile
- BioBased Tile

DESCRIPTION:

Type: Water-based/asphalt-rubber
Color: Black
Taggants: Contains no visible taggants
Trowel: S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch
Coverage: 350–400 sq. ft./gallon (32-37 sq. m.)
Units: 1 gallon (3.78 L) and 4 gallons (15.14 L)
Open Time: Until dry to touch; approximately 30 minutes or more
Working Time: 18 hours (working times may vary based on job conditions, substrates, temperature, and humidity)
Shelf Life: 1 year, unopened
Freeze/Thaw Stable: Yes, to 10° F (-12° C)
VOC Content: Zero g/L; calculated and reported, SCAQMD 1168
Clean Up: Wet – clean, white cloth with neutral detergent and water
Dry – clean, white cloth and mineral spirits
Subfloors: All grade levels of concrete, ceramic, terrazzo and marble. Polymeric poured floors, suspended wood, and wood underlayment. Steel, stainless steel, aluminum, lead, copper, brass, and bronze. Properly mixed and applied powdered underlayment. Primed and poured-in-place gypsum subfloors. Radiant-heated subfloors where the surface temperature does not exceed 85° F (29° C).
Advantages: Moisture and alkali resistant
AGIS Guarantee
Nonflammable, ammonia-free, and low odor
Contains low or no organic solvents
Can be used over “cutback” adhesive residue (reduces subfloor prep)
## S-725 Wall Base Adhesive

**CAUTION**

**S-725 EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation System:
- WALL BASE, RISERS, and Vinyl TRANSITION STRIPS

### DESCRIPTION:

<table>
<thead>
<tr>
<th>Type:</th>
<th>Water-based/rubber-resin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Off-white</td>
</tr>
<tr>
<td>Taggants:</td>
<td>Yes – 50% yellow and 50% orange</td>
</tr>
<tr>
<td>Trowel:</td>
<td>1/16&quot; deep, 1/16&quot; wide, 3/32&quot; apart), U-notch</td>
</tr>
<tr>
<td>Coverage:</td>
<td>2-1/2&quot; WALL BASE: 375-425 lin. ft./gal (114-130 m. lin.)</td>
</tr>
<tr>
<td></td>
<td>4&quot; WALL BASE: 300-350 lin. ft./gal (91-107 m. lin.)</td>
</tr>
<tr>
<td></td>
<td>6&quot; WALL BASE: 200-250 lin. ft./gal (61-76 m. lin.)</td>
</tr>
<tr>
<td></td>
<td>7&quot; RISER: 200-250 lin. ft./gal (61-76 m. lin.)</td>
</tr>
<tr>
<td></td>
<td>11-oz cartridge – 4&quot;: 1/8&quot; bead – 18 lin. ft. (5.5 m. lin.)</td>
</tr>
<tr>
<td></td>
<td>30-oz cartridge – 4&quot;: 1/8&quot; bead – 50 lin. ft. (15.2 m. lin.)</td>
</tr>
</tbody>
</table>

| Units: | 11-oz cartridge (311.8 grams) |
|        | 30-oz cartridge (950.4 grams) |
|        | quart (946 ml) |
|        | gallon (3.78 L) |
|        | 4 gallons (15.14 L) |

| Open Time: | None recommended |
| Working Time: | Up to 15 minutes |
| Shelf Life: | 1 year, unopened |
| Freeze/Thaw Stable: | Yes, to 10° F (-12° C) |
| VOC Content: | Zero g/L; calculated and reported, SCAQMD 1168 |
| Clean Up: | Wet – clean, white cloth with neutral detergent and water |
|            | Dry – clean, white cloth and mineral spirits |
| Walls: | Structurally sound and dry wall surfaces |
Advantages:
Moisture and alkali resistant
Good wet strength
Excellent bond integrity
Versatile (use for rubber or vinyl WALL BASE)
AGIS Guarantee
Nonflammable
S-750 Premium Tile Flooring Adhesive

**CAUTION**  S-750  **EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation Systems:
- Commercial Vinyl Composition Tile
- Residential Dry Back Vinyl Tile
- Primer for wood and concrete with self-adhering tile

**DESCRIPTION:**
- **Type:** Water-based/rubber resin
- **Color:** Cream
- **Taggants:** Yes – 50% yellow and 50% orange
- **Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; fine notch (1/32" deep, 1/16" wide, 5/64" apart), U-notch
  - To apply as a primer, use a brush or medium-nap roller
- **Coverage:**
  - Brush or roller (Primer): 350–400 sq. ft./gallon (33-37 sq. m.)
  - 275–350 sq. ft./gallon (26-33 sq. m.)
- **Units:** 1 quart (946 mL), 1 gallon (3.78 L) and 4 gallons (15.14 L)
- **Open Time:** Until dry-to-touch: approximately 30 minutes or more
- **Working Time:** Up to 6 hours (working times may vary based on job conditions, substrates, temperature, and humidity)
- **Shelf Life:** 1 year, unopened
- **Freeze/Thaw Stable:** No, keep from freezing
- **VOC Content:** 5 g/L; calculated and reported, SCAQMD 1168
- **Clean Up:**
  - Wet – clean, white cloth with neutral detergent and water
  - Dry – clean, white cloth and mineral spirits
- **Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, polymeric poured floors, and suspended wood
- **Advantages:** Can be used over “cutback” adhesive residue
  - Moisture and alkali resistant
  - Strong, early grab
  - AGIS Guarantee
  - Nonflammable, ammonia-free and low odor
  - Contains low or no organic solvents
Chapter V — Adhesives, Trowel Notchings, Seam Treatments and Grout

S-761 Seam Adhesive

⚠️ CAUTION ⚠️ S-761 EYE AND SKIN IRRITANT

For use with the following Installation Systems:
Highly Recommended:
• Residential Linoleum
Optional:
• Commercial Linoleum
• Commercial Vinyl-Backed
• Commercial Felt-Backed
• Commercial Heterogeneous and Inlaid
• Full-Spread Light Commercial Glass Back
• Fiberglass-Reinforced Sheet Flooring
• Residential Felt-Backed
• ToughGuard II

DESCRIPTION:

Type: Water-based/ resin
Color: White
Taggants: Yes – saturn yellow
Coverage: 1/8” bead, approximately 144 lin. ft./bottle (43 lin. m.)
Units: 8 oz. (236 mL) bottle; 12/ctn.
Open Time: None recommended
Working Time: 15 minutes
Shelf Life: 1 year, unopened
Freeze/Thaw Stable: No, keep from freezing
VOC Content: 136 g/L; calculated and reported, SCAQMD 1168
Clean Up:
Wet – clean, white cloth with neutral detergent and water
Dry – clean, white cloth and mineral spirits
Subfloors: Nonflammable, ammonia-free and low odor
Contains low or no organic solvents
S-780 Linoleum Adhesive

**S-780  EYE AND SKIN IRRITANT**

**STIR WELL BEFORE USING.**

For use with the following Installation Systems:
- Commercial Linoleum
- Residential Linoleum

**DESCRIPTION:**

- **Type:** Synthetic Polymer
- **Color:** White
- **Taggants:** Yes – 50% yellow and 50% orange
- **Trowel:** S-891 Notched Steel Trowel or S-892 Replaceable Blade Trowel; regular notch (1/16" deep, 1/16" wide, 3/32" apart), U-notch
- **Coverage:** 120-135 sq. ft./gallon (11-12.5 sq. m.)
- **Units:** 1 gallon (3.78 L) and 4 gallons (15.14 L)
- **Open Time:** Porous substrates – Set-in-wet: No open time
  Nonporous substrates – 5-10 minutes
- **Working Time:** Up to 25 minutes (working times may vary based on job conditions, substrates, temperature, and humidity)
- **Shelf Life:** 1 year, unopened
- **Freeze/Thaw Stable:** Yes, to 10°F (-12° C)
- **VOC Content:** 5.5 g/L; calculated and reported, SCAQMD 1168
- **Clean Up:** Wet – clean, white cloth with neutral detergent and water
  Dry – clean, white cloth and mineral spirits
- **Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood
- **Advantages:** Moisture and alkali resistant
  Can be installed over concrete slabs with high moisture
  Strong, early grab
  AGIS Guarantee
  Nonflammable, ammonia-free and low odor
  Contain low or no organic solvents
Bruce EverSeal Adhesive

**CAUTION**

**EVERSEAL**

**EYE AND SKIN IRRITANT**

For use with the following Installation Systems:
- Residential Laminate Flooring
- Light Commercial Laminate Flooring

**DESCRIPTION:**

**Type:** Polyvinyl acetate cross-linking emulsion (water-based)

**Color:** White when wet; dries opaque in 1 hour; contains no visible taggants

**Taggants:** None

**Applicator:** Predrilled cap on 16 oz. bottle

**Spread Rate:** 3/32” (2.4 mm) bead up to 150 sq. ft. (500 lin. ft.)/ 16 oz. bottle

**Units:** 16 oz. bottle (473 ml); 12 bottles/ ctn.; weight 14.4 lb./ ctn.

**Shelf Life:** 1 year, unopened

**Freeze/Thaw Stable:** Keep from freezing

**VOC Content:** 25 g/L; calculated and reported, SCAQMD 1168

**Clean Up:** Wet: clean, white cloth dampened with warm water.

Dry: can be easily peeled away; remove residue/haze with cloth dampened 8 oz. (1 cup) white distilled vinegar to 1 gal. water (1:16 ratio)

**Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood

**Advantages:** Nonflammable

Easy clean up

Designed to create a strong water resistant bond between tongue and groove; use for laminate installations full bathrooms, high moisture areas, and light commercial environments
Armstrong 99 Adhesive

**CAUTION**

99 EYE AND SKIN IRRITANT

For use with the following Installation Systems:
- Residential Laminate Flooring
- Light Commercial Laminate Flooring

**DESCRIPTION:**

**Type:** Polyvinyl acetate cross-linking emulsion (water-based)

**Color:** White when wet; dries opaque in 1 hour; contains no visible taggants

**Taggants:** None

**Applicator:** Predrilled cap on 16 oz. bottle

**Spread Rate:** 3/32" (2.4 mm) bead up to 150 sq. ft. (500 lin. ft.)/ 16 oz. bottle

**Units:** 16 oz. bottle (473 ml); 12 bottles/ ctn.; weight 14.4 lb./ ctn.

**Shelf Life:** 1 year, unopened

**Freeze/Thaw Stable:** Keep from freezing

**VOC Content:** 25 g/L; calculated and reported, SCAQMD 1168

**Clean Up:** Wet: clean, white cloth dampened with warm water.

Dry: can be easily peeled away; remove residue/haze with cloth dampened 8 oz. (1 cup) white distilled vinegar to 1 gal. water (1:16 ratio)

**Subfloors:** All grade levels of concrete, existing resilient floors, ceramic, terrazzo, marble, steel, stainless steel, aluminum, polymeric poured floors, and suspended wood

**Advantages:** Nonflammable

Easy clean up

Designed to create a strong water resistant bond between tongue and groove; use for laminate installations full bathrooms, high moisture areas, and light commercial environments