Luxury Flooring
Product Structure

**Parallel® 20 / Parallel® 12**

Commercial UV-cured Coating
- Scratch, scuff and stain performance:
  - Appearance retention
- Resistant to alcohol-based hand sanitizers

Performance Wear Layer
- 20 mil or 12 mil wear layer
  - for desired performance level
- Textured surface for realistic visuals:
  - High durability
  - Abrasion resistance

Designer Printed Visual

Base Layers
- Impact resistance

Quiet Comfort® LVT Underlayment
- Noise reduction
- Built-in moisture barrier (sold separately)
Affordable Luxury Flooring with a Homelike Feel

Parallel® 20, with a 20 mil wear layer, and Parallel® 12, with a 12 mil wear layer, are uniquely designed Luxury Flooring products that accommodate multiple budgets and performance needs. These collections were developed through Continuum™ Solutions, our coordinated approach that helps you select products individually and in concert to create inspiring spaces.

Specify 20 mil Commercial Performance products for areas subject to high foot traffic and heavy rolling loads. Select 12 mil Light Commercial Performance products for areas with less foot traffic and lighter rolling loads. You can use the same look in parallel spaces or contrast colors and designs to differentiate the spaces and heighten visual impact.

Whichever performance level you choose, Parallel 20 or Parallel 12 Luxury Flooring is an affordable option offering simple installation, easy repair and low maintenance. A UV-cured urethane finish eliminates the need for polishing and spray buffing in some applications, saving time, labor and costs. All products are also FloorScore® Certified for low VOC emissions.
Durable Performance

- Parallel® 20 Luxury Flooring with a 20 mil wear layer addresses the needs of areas with high foot traffic and heavy rolling loads.
- Parallel® 12 Luxury Flooring with a 12 mil wear layer addresses the needs of areas with less foot traffic and lighter rolling loads.
- High-performance coating resists scratches, scuffs, stains and damage from alcohol-based hand sanitizers.
- Ergonomic value – offers minimal resistance to moving objects, making it easy to push, pull and roll heavy equipment and furniture.

A Floor that Reflects the Beauty of Nature

- From traditional to refined rustic wood looks, Parallel® 20/Parallel® 12 Luxury Flooring enhances a space with its natural beauty and modular flexibility.
- Parallel® 20/Parallel® 12 LVT is cohesive with our timeless Natural Creations® Classics collection.
- A variety of neutrals with the realism of wood, stone and contemporary textural visuals provide just the right background when designing a room.
- Parallel® 20/Parallel® 12 LVT creates warm, comfortable spaces, making it the perfect choice for healthcare, assisted living, retail, multi-family and education spaces.

Easy Maintenance

- The UV-cured urethane finish eliminates polishing and spray buffing in some applications, saving time, labor and costs. Refer to ArmstrongFlooring.com for our full maintenance recommendations.
Sustainable

- Low VOC emissions and FloorScore® certified.
- Recyclable through the On&On™ Recycling Program – contributes to LEED® credits; reduces both environmental impacts through landfill diversion and the cost of waste disposal.
- Free of Ortho-phthalate and heavy metals – meets Well Building Standard® Toxic Material Reduction Credit requirements.

Creating a Quiet Space

Parallel® 20 | Parallel® 12 paired with our S-1840 Quiet Comfort Luxury Flooring Underlayment is ideal for spaces where noise reduction is a consideration. This solution provides exceptional footfall reduction, creating a comfortable space for all to enjoy.

The choice of floor covering can have an effect on the amount of impact sound. Flooring can help cushion the impact and therefore reduce its effect on the sound transmitted through the structure to the rooms below. When researching acoustic properties of flooring, there are key metrics to understand.

To learn more about the appropriate acoustics metrics and how flooring can have an impact, visit floorexpert.com. You can also visit ArmstrongFlooring.com/commflooringna to download our white paper, “Flooring & Acoustics: Dispelling the Myths of the Role Flooring Plays in Room Acoustics.”
Order a full-size sample to view design variation. J6226/J6126 la crescenta & J6230/J6130 los angelimmed have high plank-to-plank variation. Order multiple full-size samples to view variation.
PARALLEL® 20 | PARALLEL® 12
Luxury Flooring

- **J6227** - 20 mil  
  - **J6127** - 12 mil  
  - Yosemite Bear  
  - 6 in. x 48 in.

- **J6225** - 20 mil  
  - **J6125** - 12 mil  
  - Trunk of Tahoe  
  - 6 in. x 48 in.

- **J6223** - 20 mil  
  - **J6123** - 12 mil  
  - Rose Parade  
  - 6 in. x 48 in.

- **J6226** - 20 mil  
  - **J6126** - 12 mil  
  - La Crescenta  
  - 6 in. x 48 in.

- **J6228** - 20 mil  
  - **J6128** - 12 mil  
  - Los Angelmed  
  - 6 in. x 48 in.

- **J6222** - 20 mil  
  - **J6122** - 12 mil  
  - Gold Rush  
  - 6 in. x 48 in.
PARALLEL® 20 | PARALLEL® 12 Luxury Flooring

Luxury Flooring Multi-Purpose & Stair Nose Trim

Connecting spaces is now easier with matching designs that help transition adjoining flooring options. Our Multi-Purpose and Stair Nose Trim are designed to coordinate with Parallel® 20 and Parallel® 12 LVT.

Reasons to Specify

- Meets ADA requirements.
- Coordinates with each Parallel® 20 | Parallel® 12 LVT design and color.
- Multi-Purpose Trim achieves a finished smooth transition between Luxury Flooring and other adjacent flooring products.
- Stair Nose Trim finishes the edge of stairs, steps, step downs or landings.
- Made in the USA with global and domestic content.
- Refer to floorexpert.com for additional details on Luxury Flooring Multi-Purpose and Stair Nose Trim.

ORDER SEQUENCE KEY (2-Step Process)

<table>
<thead>
<tr>
<th>Product</th>
<th>STEP 1: Select Design</th>
<th>STEP 2: Select size</th>
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<tbody>
<tr>
<td>Multi-Purpose Trim</td>
<td>J6116 la jolla shore</td>
<td>TRM = 1.59 in. x 94 in.</td>
</tr>
<tr>
<td>Stair Nose Trim</td>
<td>J6116 la jolla shore</td>
<td>STR = 2.05 in. x 94 in.</td>
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Example of Sku Order Number:

J6116TRM
J6116STR

Multi-Purpose Trim

Provides a smooth transition from your Luxury Flooring to another flooring of a lower height.

Stair Nose Trim

Covers the expansion space on stair edges and provides a finished trim.

J6119TRM | J6119STR redondo beach
J6116TRM | J6116STR la jolla shore
J6117TRM | J6117STR catalina sand
J6129TRM | J6129STR silver sur
J6118TRM | J6118STR mulholland drive
J6122TRM | J6122STR pacific coast highway
J6124TRM | J6124STR huntington pier
J6103TRM | J6103STR argent CRV
J6127TRM | J6127STR yosemite bear
J6125TRM | J6125STR trunk of tahoe
J6126TRM | J6126STR la crescenta
J6130TRM | J6130STR los angelimedi
J6123TRM | J6123STR rose parade
J6104TRM | J6104STR patina LA
J6102TRM | J6102STR mill valley
J6128TRM | J6128STR gold rush
Adhesives and Installation

Armstrong Flooring has everything you need to install a floor and take care of it. We also supply the tools and cleaning supplies required to install and take care of your beautiful, durable high-performance floor. Our variety of adhesives, seaming and installation options, backed by the Armstrong Flooring Guaranteed Installation System, along with our portfolio of products, help create a flooring package that gives you a great warranty, backed by the most trusted, reliable name in flooring.

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<th>ADHESIVE OPTIONS (Depends on Substrate)</th>
<th>MOISTURE LIMITS</th>
<th>MAINTENANCE OPTIONS</th>
<th>ARMSTRONG FLOOR CARE PRODUCTS</th>
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<tr>
<td><strong>Wood, Concrete</strong></td>
<td><strong>Existing Resilient Floor</strong></td>
<td><strong>MVER Calcium Chloride Test (lbs./1000 sq. ft./24 hrs.)</strong></td>
<td><strong>Relative Humidity In-Situ Probe</strong></td>
</tr>
<tr>
<td><strong>S-310 Roll Strong™ Adhesive</strong></td>
<td><strong>Roller Applied:</strong> 90% RH, 8 lbs. MVER</td>
<td><strong>Open time:</strong> 15 or more minutes, <strong>Working time:</strong> Up to 4 hours</td>
<td><strong>Spread rate:</strong> 350–400 sq. ft./gal.</td>
</tr>
<tr>
<td><strong>S-288 Flooring Adhesive</strong></td>
<td><strong>Premium:</strong> 95% RH for LVT, 8 lbs. MVER</td>
<td><strong>Open time:</strong> 10–20 minutes over porous, 30+ minutes over non-porous, <strong>Working time:</strong> 60 minutes after dry to touch</td>
<td><strong>Spread rate:</strong> 250–300 sq. ft./gal.</td>
</tr>
<tr>
<td><strong>S-240 Epoxy Adhesive</strong></td>
<td><strong>Epoxy:</strong> 90% RH, 8 lbs. MVER</td>
<td><strong>Open time:</strong> 10–20 minutes, <strong>Working time:</strong> 60 minutes, <strong>Spread rate:</strong> 170–190 sq. ft./gal. (fine notch)</td>
<td><strong>Options:</strong> 1/2 gallon, 1 gallon</td>
</tr>
<tr>
<td><strong>Flip® Spray Adhesive</strong></td>
<td><strong>High-Moisture:</strong> 95% RH</td>
<td><strong>Open time:</strong> varies depending on adhesive coverage, <strong>Working time:</strong> should not exceed 4 hours, <strong>Spread rate:</strong> 140–170 sq. ft./bottle</td>
<td><strong>Options:</strong> 22 oz. bottle</td>
</tr>
<tr>
<td><strong>S-1840 Quiet Comfort™ Luxury Flooring Underlayment</strong></td>
<td><strong>Designed for use with Commercial Luxury Flooring</strong></td>
<td><strong>Noise:</strong> Excellent acoustic barrier for through-the-floor and in-room footfall noise reduction, <strong>Moisture:</strong> Cross-linked polypropylene provides moisture barrier which resists mold and mildew, <strong>Weight:</strong> 6 lbs./roll, <strong>STC/IIC Rating:</strong> 62/64</td>
<td><strong>Options:</strong> 300 sq. ft. roll</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAINTENANCE OPTIONS</th>
<th>Low Maintenance/No Polish Option</th>
<th>Traditional</th>
<th>ARMSTRONG FLOOR CARE PRODUCTS</th>
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</thead>
<tbody>
<tr>
<td>Spray Buff</td>
<td>✔</td>
<td>✔  ✔</td>
<td>S-485</td>
</tr>
<tr>
<td>Dry Buff</td>
<td>✔</td>
<td>✔  ✔</td>
<td>S-495</td>
</tr>
<tr>
<td>No Buff</td>
<td>✔</td>
<td>✔  ✔</td>
<td>S-495</td>
</tr>
<tr>
<td>Polish</td>
<td>✔</td>
<td>✔  ✔</td>
<td>S-480</td>
</tr>
</tbody>
</table>
PARALLEL® 20 | PARALLEL® 12 Luxury Flooring

Maintenance

S-485 Commercial Floor Cleaner
- Neutral floor cleaner at normal dilution, 8.5 pH
- High efficiency allows dilution to as low as 64:1
- Low foaming formula is great for automatic floor machines, damp-mopping, and/or moderate to heavy scrubbing
- Won’t strip polish
- Pleasant fragrance
- Contains no phosphates
Spread Rate: Cleaners and strippers do not have a spread rate, dilute according to instructions for proper pH level
Options: 1 gallon (4 gal./ctn.), 5 gallon

S-480 Commercial Floor Polish
- Meets the ASTM D2047 standard for slip-resistance on dry floors
- High durability for long-lasting protection
- Dries bright for areas where buffing is not applicable or desired
- Metal cross-linked acrylic copolymer emulsion polish, 8.5 - 8.75 pH
- 18% solids for easy application and excellent leveling
Spread Rate: 1500 - 2000 sq. ft. gallon per coat depending on the surface characteristics of the floor
Application: Excellent buffing response for spray-buffing repairs or high-speed burnishing programs (up to 2,000 rpm)
Options: 1 gallon (4 gal./ctn.), 5 gallon

S-495 Commercial Floor Sealer
- Stain-resistant sealer for porous or well-worn floor surfaces
- Provides an excellent base for S-480 or other commercial floor polishes
- High durability for long lasting protection
- Water-based acrylic emulsion, 7.8 pH
- 16% solids for easy application and excellent leveling
- Semi-permanent for resistance to conventional polish stripping
Spread Rate: 1500–2000 sq. ft. per gallon per coat
Options: 1 gallon (4 gal./ctn.), 5 gallon
Material
A layered construction consisting of a tough, clear, vinyl wear layer protecting a high-fidelity print layer on a solid vinyl backing. Protected by a UV-cured polyurethane finish, the wear surface is embossed with different textures to enhance each of the printed visuals. Colors are insoluble in water and resistant to cleaning agents and light.

Size
12 in. x 24 in. (304.8 mm x 609.6 mm)
6 in. x 48 in. (152.4 mm x 1219.2 mm)

Gauge (nominal thickness)
Parallel 20 - 0.100 in. (2.5 mm)
Parallel 12 - 0.080 in. (2.0 mm)

Wear Layer (nominal thickness)
Parallel 20 - 0.025 in. (0.6 mm)
Parallel 12 - 0.012 in. (0.3 mm)

Limitations
Parallel 20 and Parallel 12 Luxury Flooring should not be used in the following areas:
• Hospital operating rooms
• Heavy industrial and exterior areas
• Commercial kitchens and commercial food processing areas
• Where pointed spikes such as golf or track shoes will be used

NOTE: Concentrated static and dynamic loads such as hospital beds, roller skates, local traffic, portable or fixed appliances, etc., may cause damage resistant as well as other types of floor coverings. For questions regarding product suitability and detailed instructions for floor preparation and installation in these applications, please contact Armstrong Flooring.

Suitable for Application Over
• Concrete, terrace and other dry, structurally sound monolithic subfloors on all grade levels
• Existing resilient flooring
• Suspended wood subfloor construction with approved wood underlayments, and a minimum of 18 in. (45.7 cm) well-ventilated air space below
• Certain metals
• Radiant-heated subfloors with a maximum surface temperature of 85° F (29° C)

 Unsuitable for Application Over* 
• Subfloors where excessive moisture or oil is present.
• Steeper-constructed wood subfloors.
• Lightweight aggregate concrete subfloors having a density of less than 90 lbs. per cu. ft. (1442 kg/m³) or cellular concrete having a plastic (wet) density less than 100 lbs. per cu. ft. (1602 kg/m³) (94 lbs. per cu. ft. (1560 kg/m³) dry weight) or concrete having a compressive strength of less than 3500 psi (24 MPa). Concrete slabs with heavy static and/or dynamic loads should have higher design strength and densities calculated to accommodate such loads.

Suitable for Application
• Check suitability and detailed instructions for floor preparation and installation in these applications, please contact Armstrong Flooring.

Gloss (typical value)
60 degrees specular; approximately S-28

Reference Specifications
ASTM F 1700, Class III, Type B – Embossed Surface

Static Load Limit
250 lbs./sq. in. (17.7 kg/cm²)

NOTE: Floors should be protected from sharp-point loads and heavy static loads. High-traffic loads (10,000 psi (70.3 kg/cm²) or more) may visibly damage resilient floor coverings. For questions regarding product suitability and detailed instructions for floor preparation and installation in these applications, please contact Armstrong Flooring.

Fire Test Data

Numerical flammability ratings alone may not define the performance of the product under actual fire conditions. These ratings are provided only for use in the selection of products to meet the specified limits. ASTM E 648-98A. Dynamic Flame Panel, Critical Optical Flame - 0.45 watts/cm² or more, Class I

ASTM E 662 Smoke Chamber Specific Optical Smoke Density - 469 or less

Parallel 12 - CAN/ULC-S102.2 Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials and Assemblies.

Flame Spread Rating – S 1 Smoke Developed Classification - 85

INSTALLATION

Job Conditions
Subfloors/underlayments shall be dry, clean and smooth. They shall be free of dust, solvents, varnish, paint, wax, oil, grease, residual adhesive removers, permanent markers and other foreign materials that might affect the adhesion of resilient flooring or cause a discolouration of the flooring from below.

Spray paints, permanent markers and other ink emblem markers must not be used on the back of the flooring material or used to mark the concrete slab as they could bleed through, telegraphing up to the surface and permanently staining the flooring material. If these containants are present on the subfloor, they must be mechanically removed prior to the installation of the flooring material.

For more detailed requirements of concrete, wood and metal subfloors, as well as trowelable and wood underlayments, refer to the installation instructions at floorexpert.com.

Moisture testing must be performed on all concrete slabs regardless of their age or grade level, including areas where resilient flooring has already been installed. Moisture Vapor Emission Rate (MVER) using Calcium Chloride (ASTM F 1869) and percent relative internal humidity (ASTM F 2170) tests must be conducted in strict accordance with the most current edition of the ASTM test methods. Following are the maximum allowable moisture limits for the installation of Parallel 20 and Parallel 12 LVT:

• When using S-310 Roll Strong®, moisture test results shall not exceed 90% RH per ASTM F 2170.
• When using S-288 Adhesive, moisture test results shall not exceed a MVER of 8.0 lbs./1000 sq. ft. (3.6 kg/m²) or 95% RH per ASTM F 2170.
• When using Flip™ Spray Adhesive, moisture test results shall not exceed 50% RH per ASTM F 2170.
• When using S-240 Adhesive, moisture test results shall not exceed a MVER of 8.0 lbs./1000 sq. ft. (3.6 kg/m²) or 95% RH per ASTM F 2170.

On installations where both the Moisture Vapor Emission Rate and Percent Internal Relative Humidity Tests are conducted, results for both tests shall comply with the allowable limits listed above.

Before installation, concrete floors should also be tested for pH following procedures in ASTM F 710. When testing for pH, the allowable readings for the installation of Armstrong Luxury Flooring are 5 to 9 when using S-288 and/or S-240, 5 to 11 when using Flip™ Spray Adhesive and 8 to 10 when using S-310 Roll Strong®.

Bond Test should also be conducted for compatibility with the substrate.

Temperature should be maintained at a minimum of 65° F (18° C) and a maximum of 100° F (38° C) for 48 hours prior to installation, during installation and 48 hours after completion when using S-288. When using S-240 Epoxy Adhesive, temperature should be maintained at a minimum of 65° F (18° C) and a maximum of 85° F (29° C) for 48 hours prior to installation, during installation and 48 hours after completion.

During the service life of the floor, the temperature should never rise above 100° F (38° C) or fall below 55° F (13° C). Condition all flooring materials and adhesives to room temperature for a minimum of 48 hours prior to starting the installation. Protect all materials from the direct flow of heat from hot registers, radiators or other heating fixtures and appliances.

Procedure

Parallel 20 and Parallel 12 must be installed full spread using Armstrong S-288 Adhesive. In areas with heavy concentrated static or dynamic loads, it may be necessary to install with S-240 Epoxy or Flip Spray Adhesives or S-310 Roll Strong®. When installing Parallel 20 and Parallel 12 in areas where it will be subjected to direct sunlight, topcoat moisture or temperature fluctuations, S-240 Epoxy Adhesive must be used.

Detailed installation instructions can be found at floorexpert.com.

MAINTENANCE
Parallel 20 and Parallel 12 are designed to be maintained with a No Polish/No Buff maintenance system or by traditional resilient flooring maintenance methods. The urethane protective finish may make initial maintenance easier, as well as reduce ongoing maintenance procedures.

Initial Maintenance Immediately Following Installation:
• Sweep, dust mop or vacuum the floor thoroughly to remove all loose dust, dirt, grime and debris.
• Remove any dried adhesive residue with a clean, white cloth dampened with mineral spirits, carefully following warnings on the container.
• Damp mop with a properly diluted neutral detergent solution such as Armstrong S-485 Floor Cleaner.
• Do not wash the floor for at least four days after installation. Black marks and dirty spots can be treated by spot scrubbing (use nothing more abrasive than a 3M blue/green pad or equivalent).
• If maintaining Parallel 20 and Parallel 12 with polich, as an temporary measure, apply a minimum of two coats of high quality commercial floor polish such as S-480 Floor Polish to protect the floor until regular maintenance procedures can be started.

NOTE: Before applying polish, it will be necessary to first scrub the floor with a properly diluted neutral cleaner using a floor machine fitted with an appropriate scrubbing brush (aggressiveness equivalent to 3M red pad).

Preparation for Commercial Use
Refer to maintenance methods detailed at floorexpert.com.

LIMITED WARRANTY

Parallel 20
Commercial-15 years
Residential-30 years

Parallel 12
Commercial-7 years
Residential-15 years

See Armstrong Flooring Warranty at ArmstrongFlooring.com for warranty details, limitations and exclusions.