Product	
Supplier	Flooring2
Product Type	Laminate Flooring
Number	RG
Name	Regal

Floating Floors Installation Guide (Drop-Lock)

Document Version: 1.0
Last Updated: January 2026

Applies to: Laminate, SPC, and WPC floating floors with drop-lock (fold-down) locking systems, including Valinge 5G and similar mechanisms.

Legal Disclaimers

IMPORTANT: READ BEFORE INSTALLATION

Limitation of Liability
This guide provides general installation information only. We are not responsible for installation errors, product damage, personal injury, or property damage resulting from the use of this guide. Actual results depend on site conditions, installer skill, and adherence to all applicable codes and standards.

General Information Notice
This guide covers floating floor installation for products using drop-lock (fold-down) locking systems. Product specifications may vary between product lines.

Professional Consultation Recommended
We recommend consulting a licensed flooring professional before installation, especially for complex projects or situations involving structural modifications.

Assumption of Risk
By proceeding with installation, you assume all risks associated with flooring installation, including but not limited to physical injury, property damage, and voiding of product warranties due to improper installation.

Safety Warnings

Regulatory Compliance

Before beginning any flooring installation, ensure compliance with:

- **OSHA Standards** - Follow workplace safety requirements (29 CFR 1926 for construction)
- **EPA Regulations** - Proper handling and disposal of materials
- **Building Codes** - Comply with International Building Code (IBC) and International Residential Code (IRC)
- **Lead Safety** - For structures built before 1978, follow EPA RRP Rule requirements
- **Asbestos Requirements** - For structures built before 1981, have existing flooring tested before removal

Personal Protective Equipment (PPE)

Equipment	When Required
Respiratory Protection	N95 mask when cutting planks
Eye Protection	Safety glasses during all cutting
Hearing Protection	When using power saws
Hand Protection	Work gloves when handling materials
Knee Protection	Knee pads for floor-level work

Health Hazards

Dust Exposure:

- • Use dust collection when cutting
- • Cut outdoors or in well-ventilated area when possible
- • Laminate and rigid-core dust can irritate respiratory system

Physical Strain:

- • Use proper lifting techniques for material boxes
- • Use knee pads to reduce knee strain
- • Take regular breaks during installation

Sharp Edges:

- • Cut edges can be sharp
- • Handle materials carefully

Emergency Procedures

Situation	Action
Cuts from Saw/Knife	Apply pressure, clean wound, seek medical attention if deep
Eye Injury from Dust	Flush with clean water for 15 minutes, seek medical attention
Inhalation of Dust	Move to fresh air, seek medical attention if symptoms persist

Emergency Contacts:

- • Poison Control: 1-800-222-1222
- • Local emergency services: 911

Understanding Drop-Lock (Fold-Down) Systems

How Drop-Lock Works

Drop-lock (also called fold-down or 5G) systems allow for faster, easier installation than traditional angle-angle systems:

1. **Long edge:** Angles into the previous row (similar to angle-angle)
2. **Short edge:** Simply drops/folds down and clicks into place
3. **No angling required** on short ends - just press down

This is achieved through a spring-loaded plastic tongue or flexible locking mechanism that snaps into place when the plank is pressed down.

Benefits of Drop-Lock

- • **Faster installation** - No need to angle short ends
- • **Easier for tight spaces** - Planks can be installed flat
- • **Simpler for beginners** - More intuitive locking motion
- • **Works in any direction** - Can install from any starting point

Product Types Using Drop-Lock

- • Laminate flooring (most modern high-quality laminate)
- • SPC (Stone Plastic Composite) with 5G-style locks
- • WPC (Wood Plastic Composite) with drop-lock mechanisms

Pre-Installation Preparation

Tools and Materials Needed

Basic Tools:

- • ☐ Tape measure (minimum 25 ft / 7.6 m)
- • ☐ Chalk line or laser level
- • ☐ Utility knife with extra blades
- • ☐ Straight edge or T-square
- • ☐ Pencil or marking tool
- • ☐ Tapping block (specific for floating floors)
- • ☐ Pull bar for tight areas

- ☐ Rubber mallet

Power Tools:

  - ☐ Circular saw, miter saw, or laminate cutter
  - ☐ Jigsaw for irregular cuts
  - ☐ Oscillating multi-tool (for undercutting door frames)

Materials:

  - ☐ Floating floor planks (add 10% for waste and cuts)
  - ☐ Underlayment (if not attached to planks)
  - ☐ 6 mil polyethylene moisture barrier (see requirements below)
  - ☐ Spacers (1/4" / 6 mm for vinyl/SPC; 3/8" / 10 mm for laminate)
  - ☐ Transition strips (T-molding, reducer, end cap)
  - ☐ Quarter round or shoe molding

Safety Equipment:

  - ☐ Safety glasses
  - ☐ Work gloves
  - ☐ Knee pads
  - ☐ Dust mask
  - ☐ Hearing protection

Moisture Barrier Requirements

IMPORTANT: CRITICAL: Moisture Barrier Policy

Installation Location	Moisture Barrier Requirement
On-grade (slab on ground)	REQUIRED - 6 mil (0.15mm) polyethylene
Below-grade (basement)	REQUIRED - 6 mil (0.15mm) polyethylene
Above-grade (upper floors)	RECOMMENDED - 6 mil (0.15mm) polyethylene

Moisture Barrier Installation:

  - Overlap seams by 8" (20 cm) minimum
  - Tape all seams with moisture-resistant tape
  - Run barrier up walls 2" (5 cm) - trim after installation
  - Do not staple or puncture the barrier

Laminate-Specific Notes:

  - Laminate is more susceptible to moisture damage than SPC/WPC
  - Moisture barrier is especially critical for laminate products
  - Consider combination underlayment with built-in vapor barrier

Room Preparation

1. **Remove furniture and appliances** - Clear the entire installation area
2. **Remove existing flooring** - If applicable (floating floors can go over many surfaces)
3. **Remove baseboards and transitions** - Label for reinstallation if reusing
4. **Clean the subfloor** - Remove all debris, dust, and contaminants
5. **Undercut door frames** - Allow flooring to slide underneath (use plank as thickness guide)
6. **Check door clearance** - Doors may need trimming

Subfloor Requirements

Flatness Specification:

  - Maximum variance: 3/16" over 10 feet (4.7 mm over 3 m)
  - Laminate is less forgiving than vinyl; strict flatness is essential
  - Sand down high spots
  - Fill low spots with leveling compound

Acceptable Subfloor Types:

  - ☐ Concrete (fully cured, minimum 60 days)
  - ☐ Plywood (minimum 1/4" / 6 mm, in good condition)
  - ☐ OSB (minimum 1/4" / 6 mm, in good condition)
  - ☐ Existing hard-surface flooring (vinyl, tile, hardwood - if well-bonded and level) - see note below
  - ☐ Existing laminate (if well-bonded and level - check total thickness) - see note below

Installation Over Existing Flooring: While installation over existing hard-surface flooring is allowed, it is NOT recommended. Installing over existing flooring increases total floor height, may affect door clearances, and can transfer any underlying issues to the new floor. For best results, remove existing flooring and install directly on the subfloor.

NOT Acceptable:

- Carpet or carpet pad (must be removed)
- Cushion-backed vinyl
- Floating floors over floating floors (stability issues)
- Uneven or damaged subfloors

Moisture Testing Requirements:

Subfloor Type	Test Method	Maximum Reading
Concrete	Calcium Chloride (CaCl)	3 lbs per 1,000 sq ft / 24 hrs (laminate)
Concrete	Relative Humidity (RH)	75% RH (laminate), 85% RH (SPC/WPC)
Wood	Pin-type moisture meter	12% moisture content

> **Note:** Laminate has stricter moisture limits than SPC/WPC due to its wood-based core.

Climate Requirements

Required Conditions:

- Temperature: 65F - 85F (18C - 29C)
- Relative Humidity: 35% - 55% RH
- Maintain conditions 48 hours before, during, and after installation

Vacation/Seasonal Homes:

- Operating range: 55F - 95F (13C - 35C)
- Minimum temperature: 40F (4C)
- HVAC must be operational to maintain conditions

Acclimation:

Product Type	Acclimation Time	Notes
Laminate	48-72 hours	Essential due to wood-based core
SPC	24-48 hours	Minimal due to rigid mineral core
WPC	24-48 hours	Minimal due to rigid foam core

- Store in installation area
- Keep boxes closed until ready to install
- Material and room should be at similar temperature

Installation Method

Drop-Lock Installation

Best For: All laminate, SPC, and WPC products with drop-lock/fold-down locking systems

Requirements:

- Clean, level subfloor
- Appropriate underlayment/moisture barrier
- Proper environmental conditions

Step-by-Step Instructions

Step 1: Plan Your Layout

- Measure the room width and calculate number of rows
- Ensure first and last rows are at least half-plank width (adjust starting point if needed)
- Determine starting wall (typically longest, straightest wall)
- Plan plank direction (usually parallel to main light source or longest dimension)
- Calculate stagger pattern: minimum 8" (20 cm) offset between end joints

Step 2: Install Moisture Barrier and Underlayment

- Install 6 mil moisture barrier if required (see requirements above)
- Install underlayment per manufacturer instructions

- If planks have attached underlayment, do not add additional padding
- Tape all seams to prevent overlap and bunching

Step 3: Begin First Row

- Start in left corner of starting wall (for right-handed installers)
- Place spacers (1/4" - 3/8" / 6-10 mm) against starting wall and side wall
- Lay first plank with tongue facing the room
- Cut off groove edge of first row planks (the side against the wall)

Step 4: Complete First Row

- For second plank: angle short end into first plank OR drop-lock depending on system
- For drop-lock short ends: position plank, then press down to engage lock
- Continue adding planks to complete first row
- Cut final piece to fit, leaving expansion gap at end wall

Step 5: Start Second Row

- Cut first plank of second row to create stagger (minimum 8" / 20 cm offset from first row)
- **Long edge:** Angle into first row at approximately 20-30 degrees
- Lower plank flat onto underlayment
- **Short edge:** Simply push plank against previous plank and press down
- The drop-lock mechanism clicks into place automatically

Step 6: Continue Installation

- Work left to right, row by row
- For each plank:
    1. Angle long edge into previous row
    2. Lower plank flat
    3. Push against adjacent plank and press down on short end
- Maintain consistent stagger pattern
- Mix planks from different boxes for pattern variation
- Use tapping block if needed to fully engage locks

Step 7: Install Final Row

- Measure width needed (minus expansion gap)
- Rip planks to width using table saw or circular saw
- May need to remove locking edge on wall side
- Use pull bar to help engage final row
- Maintain expansion gap at end wall

Step 8: Complete Installation

- Remove all spacers
- Install transitions at doorways and floor changes
- Install quarter round or shoe molding to cover expansion gap
- Nail molding to wall, not to floor (allows floor to float)

Finishing Touches

Expansion Gap Requirements

IMPORTANT: Critical: Expansion gaps are essential for floating floors.

Product Type	Minimum Perimeter Gap
Laminate	3/8" (10 mm)
SPC	1/4" (6 mm)
WPC	1/4" (6 mm)

Gap Locations:

- All walls
- Around fixed objects (columns, pipes, cabinets)
- At door frames and transitions
- For rooms over 40 ft (12 m) in any direction: consider T-molding expansion break

Transitions and Moldings

Transition Type	Use Case
T-Molding	Between rooms of equal height flooring
Reducer	Transition to lower flooring (carpet, tile)
End Cap	At doorways, sliding doors, or fireplaces
Stair Nosing	For stair edges (verify product is stair-rated)
Quarter Round	Along walls to cover expansion gap
Flush Reducer	Between laminate and hard-surface flooring

Installation Notes

- **Quarter round/shoe molding:** Nail to wall only, never to the floor
- **Transitions:** Fasten to subfloor only, allowing floor to move underneath
- **Never pin flooring:** Don't fasten anything through the floor surface
- **Cabinets and islands:** Floor should not be trapped under heavy, fixed objects

Final Steps

1. **Clean the floor** - Sweep or vacuum thoroughly
2. **Inspect all areas** - Check for gaps, damage, or unlocked joints
3. **Test all locks** - Walk the floor and listen for clicks or movement
4. **Install transitions** - At all doorways and floor type changes
5. **Install quarter round** - Around entire perimeter
6. **Replace furniture** - Use felt pads under all furniture legs
7. **Trim doors if needed** - Ensure proper clearance

Traffic Restrictions

- **Light foot traffic:** Immediately after installation
- **Normal use:** Immediately (no adhesive curing required)
- **Heavy furniture:** 24 hours (allow floor to settle)
- **Rolling loads:** Use hardboard paths for moving heavy items

WARNING - ROLLING LOADS NOT RECOMMENDED: Floating floors are not designed for sustained rolling loads such as office chairs, carts, pallet jacks, or other wheeled equipment. Rolling loads can damage locking mechanisms, cause joint separation, and create permanent wear patterns. Damage caused by rolling loads is not covered under product warranties. For areas with rolling chair traffic, use chair mats to protect the floor.

Room-Specific Considerations

High-Traffic Areas

- SPC is most durable for high-traffic areas
- Laminate: choose AC4 or AC5 rated products for commercial traffic
- Plan transitions at heavily used doorways

Kitchens

- **SPC/WPC:** Waterproof core - excellent for kitchens
- **Laminate:** Water-resistant only - wipe spills immediately
- Install under or around appliances as appropriate
- Leave expansion gap around island cabinets

Bathrooms

IMPORTANT: Important: Product-Specific Ratings

- **SPC/WPC:** Most are waterproof and bathroom-rated - verify product specifications
- **Laminate:** Generally NOT recommended for bathrooms due to moisture sensitivity

For approved products:

- Maintain expansion gaps even in wet areas
- Apply silicone caulk at tub and toilet bases
- Ensure good ventilation to prevent moisture buildup

Basements

- **SPC/WPC:** Excellent for basements (waterproof core)
- **Laminate:** Use with caution - higher moisture risk
- **REQUIRED:** 6 mil moisture barrier on all basement installations
- Conduct thorough moisture testing before installation
- Monitor humidity levels seasonally

Stairs

- Verify product is rated for stair use
- Most floating floors require adhesive for stair treads
- Use proper stair nosing
- Each tread must be secured (not floating on stairs)
- Consider professional installation for stairs

Radiant Heat Systems

Pre-Installation Requirements:

- Verify product is rated for radiant heat
- Only hydronic radiant heat typically approved
- Minimum 3/8" (10 mm) separation from heating components
- System must be operational 2 weeks before installation
- Reduce temperature to 65F (18C) 5 days before installation

Post-Installation:

- Gradually increase temperature (maximum 5F / 2.8C per day)
- Maximum floor surface temperature: 85F (29C) for laminate, 85F (29C) for SPC/WPC
- Never exceed product's temperature rating

Quality Control Checklist

Pre-Installation

- ☐ Subfloor flatness verified (3/16" over 10 ft maximum)
- ☐ Moisture testing completed and documented
- ☐ All moisture readings within acceptable limits
- ☐ Moisture barrier installed (if on or below grade)
- ☐ Materials acclimated (48-72 hours for laminate, 24-48 for SPC/WPC)
- ☐ Environmental conditions verified (65-85F, 35-55% RH)
- ☐ Underlayment installed and taped
- ☐ Layout planned and first/last row widths calculated
- ☐ All tools and materials on site

During Installation

- ☐ Expansion gaps maintained with spacers
- ☐ Stagger pattern consistent (minimum 8" offset)
- ☐ Planks mixing from multiple boxes
- ☐ Long edges fully engaged before pressing short ends
- ☐ Drop-lock mechanism clicking properly
- ☐ No damaged or defective pieces installed
- ☐ Tapping block used where needed

Final Inspection

- ☐ All joints tight and fully locked
- ☐ No visible gaps or lippage
- ☐ Expansion gaps consistent around perimeter
- ☐ All transitions properly installed
- ☐ Quarter round installed and covering gaps
- ☐ Floor is clean and free of debris
- ☐ Doors open and close properly
- ☐ No squeaking or movement when walking

Troubleshooting

Drop-Lock Not Engaging

Cause: Debris in mechanism, damaged lock, or improper technique

Solution:

- Remove plank and inspect locking mechanism
- Clean any debris from joint
- Check for damaged or broken plastic tongue
- Ensure long edge is fully engaged before pressing down short end

Prevention:

- Keep subfloor and planks clean
- Inspect each plank before installation
- Follow proper installation sequence

Gaps Between Planks

Cause: Improper locking, subfloor issues, or environmental changes

Solution:

- Lift and re-engage affected planks
- Ensure both long and short locks are fully engaged
- Check subfloor flatness

Prevention:

- Engage long edge completely before pressing down
- Maintain consistent room temperature and humidity
- Address subfloor issues before installation

Buckling or Peaking

Cause: Insufficient expansion gap or floor pinned by obstruction

Solution:

- Identify obstruction (molding, transition, heavy furniture)
- Increase expansion gap at walls
- Remove any fasteners through flooring

Prevention:

- Maintain proper expansion gaps everywhere
- Never fasten through flooring
- Allow gap around fixed objects
- Laminate especially needs adequate gaps

Squeaking or Clicking Sounds

Cause: Uneven subfloor, debris under floor, or loose joints

Solution:

- Identify source of noise
- May require lifting sections to address subfloor or debris
- Re-engage loose joints

Prevention:

- Ensure subfloor is flat and clean
- Verify all joints are fully locked
- Do not double-up underlayment

Swelling at Edges (Laminate)

Cause: Moisture exposure

Solution:

- Damaged planks must be replaced
- Identify and eliminate moisture source
- Improve moisture protection

Prevention:

- Install proper moisture barrier
- Clean spills immediately
- Do not install laminate in wet areas
- Maintain proper humidity levels

Professional vs DIY

DIY Suitable For

- Most residential installations
- Rectangular rooms with few obstacles
- DIYers with moderate home improvement experience
- Areas under 1,000 sq ft
- Drop-lock systems are easier for DIYers than angle-angle

Professional Installation Required For

- Stairs (due to adhesive requirements)
- Very large areas (may need expansion joints)
- Complex room layouts with many cuts
- Commercial installations
- When subfloor preparation is needed
- Radiant heat systems
- When warranty requires professional installation

Product-Specific Notes

Laminate Flooring

- Most sensitive to moisture - always use moisture barrier
- Requires longest acclimation time (48-72 hours)
- Cannot be installed in bathrooms or high-moisture areas
- Use 3/8" (10 mm) expansion gaps
- AC rating indicates durability (AC3=residential, AC4=commercial, AC5=heavy commercial)

SPC (Stone Plastic Composite)

- Waterproof rigid core
- Minimal expansion/contraction
- Suitable for all residential areas including bathrooms
- Can handle temperature variations better than laminate
- Use 1/4" (6 mm) expansion gaps

WPC (Wood Plastic Composite)

- Waterproof foam core
- Softer, warmer feel than SPC
- Better sound absorption than SPC
- Suitable for bathrooms and kitchens
- Use 1/4" (6 mm) expansion gaps

Care and Maintenance

Daily Care

- Sweep or dust mop to remove loose dirt and debris
- Wipe up spills immediately (especially important for laminate)
- Use doormats at entrances

Regular Cleaning

- Damp mop with neutral pH cleaner
- Use neutral pH cleaners only

- Avoid excess water (especially on laminate)
- Use microfiber mop for best results
- Never wet mop laminate

Products to Avoid

- Steam cleaners (can damage core and locks)
- Excessive water
- Wax or polish products
- Oil-based soaps
- Ammonia-based cleaners
- Bleach or harsh chemicals
- Abrasive cleaners or scrub pads

Ongoing Maintenance

- Use felt pads under all furniture legs
- Use chair mats under rolling chairs
- Lift furniture to move, do not drag
- Protect from prolonged direct sunlight
- Maintain consistent indoor humidity (35-55% RH)
- Trim pet nails regularly
- Replace damaged planks promptly

Additional Resources

Industry Associations

- Resilient Floor Covering Institute (RFCI) - for SPC/WPC
- North American Laminate Flooring Association (NALFA)
- World Floor Covering Association (WFCA)

Certification Programs

- CFI Certified Flooring Installers
- INSTALL Flooring Certification

Warranty Information

See separate warranty brochure for complete warranty terms and conditions.

This installation guide is provided for general reference. Always consult local building codes before installation.