# Stone Plastic Composite (SPC) Flooring

Installation Guide (Angle to Angle Locking System)

| Locking Mechanism | Collections |
|---|---|
| Angle to Angle | Oceanus • Nautilus & Herringbone • Atlantis • Athens • Zen Tile |

**Professional Use & Legal Notice** This guide is intended for end customers and professional installers. It outlines general installation requirements for Cyrus Floors SPC products using the Angle to Angle locking mechanism. Installations must comply with local building codes and the underlayment/vapour barrier manufacturers' written instructions. Installer is responsible for jobsite conditions (moisture, flatness, structural integrity), correct tools, and workmanship. Do not install planks with visible defects. If conditions are uncertain, stop and consult a qualified flooring professional before proceeding.

## Contents

1. Scope and Key Rules
2. Tools and Materials Checklist
3. Jobsite Preparation
4. Subfloor Requirements
5. Underlayment and Vapour Barrier
6. Layout Planning
7. Installation – (angle-angle / angle-tap)
8. Finishing Details

## 1. Scope and Key Rules

This guide applies to Cyrus Floors SPC collections listed on the cover. Cyrus SPC is designed for interior, dry areas. Laminate is installed as a **floating floor** unless otherwise specified in writing for a particular project.

### Key rules

• Maintain a continuous expansion gap around the perimeter and at all fixed objects.

• Stagger end joints and avoid repeating patterns for structural stability.

• Never fasten laminate planks to the subfloor, and do not trap the floor under heavy fixed cabinetry.

• Inspect each plank before and during installation; do not install damaged or visually unacceptable boards.

## 2. Tools and Materials Checklist

Typical tools include measuring, layout, cutting, and tapping tools. A tapping block and pull bar are required for click systems; spacers are required to maintain expansion gaps.

### Typical tools

• Tape measure, square, pencil, straightedge •

Level/straightedge for flatness checks; vacuum • Spacers

(expansion), tapping block, pull bar, mallet • Saw appropriate

for the material (jigsaw or chop/table saw)

## 3. Jobsite Preparation

• The building must been closed and climate-controlled. Complete all wet trades and allow the site to dry before installation. Remove existing baseboards/trim where required and ensure the subfloor is clean and free of debris and residues.
• Store cartons flat in the room and allow the product to acclimate in unopened cartons for at least **48 hours** once the site is within normal living conditions.
• Room Temperature during installation must be greater than **15°C** and temperature controlled throughout installation.
• Room temperature should maintain between **15°C (59°F)-28°C (82.4°F)**, and constant relative humidity between **30% to 50%** after installation.
• Storage: all cartons should be stored horizontally at all times; never stored on sides and make sure all corners are protected from damage. Keep all Cyrus floors laminate flooring in a dry room allowing air space under and around cartons.
• Always perform an visual inspection to all planks for and defects prior and during installation. Do not install damaged planks.
• When installing a floating floor, be sure to allow **6mm (1/4”)** room around every obstruction ( including heavy objects such as counters, cabinets and kitchen islands) due to expansion and contractions that may occur. Do not exceed installation spans of 40’ without transition mouldings.

## 4. Subfloor Requirements

• All subfloors must be clean, dry, structurally sound, and flat within one of the following tolerances: 1/8" in 6 ft (3 mm in 2 m), 1/16" in 3 ft (1.5 mm in 1 m), or 3/16" in 10 ft (5 mm in 3 m).
• When floating over pre-existing floors such as ceramic tile, all grout-lines must be levelled with a suitable bonding-filler and inspected for proper adhesion.

### 4.1 Plywood / OSB Subfloors

• Must meet local building code requirements: minimum 5/8" T&G plywood or 3/4" T&G OSB in Canada.
• Panels must be securely fastened, free from squeaks, protruding fasteners, or movement.
• Subfloor moisture content must not exceed 12%, and the variance between subfloor and flooring must not exceed 4%.

### 4.2 Concrete Subfloors

• Must be fully cured for at least 60 days prior to installation.
• Moisture testing is required using one of the following:
  - ASTM F2170-11 (or equivalent) in-situ RH test — results must be ≤75% RH.
  - Tramex or equivalent moisture meter — results must indicate ≤3 lbs/1000 sq.ft/24 hrs emission rate.
  - Concrete must be smooth, flat, and free of debris, paint, sealers, or contaminants.

### 4.3 Radiant Heated Subfloors

• Radiant heating systems must be fully functional and tested for a minimum of two weeks prior to installation.
• Turn the system off at least 24 hours before installation begins.
• After installation, gradually increase temperature by no more than 3°C (5°F) per day until the desired temperature is reached.
• All Cyrus SPC Flooring can be installed over the hydronic and electric type radiant heat systems. All hydronic pipes or electrical wirings must be completely covered and isolated with minimum 3/8”(9.5mm) thick concrete or plywood.

## 5. Attached Underlayment and Vapour Barrier (SPC)

• All Cyrus Floors SPC products include a factory-attached IXPE underlayment. This attached pad functions as the underlayment for the floating floor.

• Do not install additional underlayment over the attached IXPE unless specifically approved in writing for the project. Installing an additional soft underlayment can increase deflection, compromise click-lock performance, and may result in joint damage or failure.

## 6. Layout Planning

### Before you start

• Plan the layout along the longest wall or the primary light direction for the best visual result.

• Calculate row widths so the first and last row are not too narrow; aim for a minimum of 5 cm (2 in.) width at edges.

• Stagger end joints by at least 30 cm (12 in.) and avoid a ‘stair-step’ look.

# 7. Installation – Angle-angle / Angle-tap

Angle-angle / Angle-tap typically connects by angling the plank into place; tapping methods may be used where angling is not possible.

## 7.1 Long-side connection (angle)

• Start with the first row positioned with the groove side facing away from the starting wall.

• Engage the long side by inserting the tongue into the groove at approximately a 20–30° angle and then lowering the plank to lock.

• Always confirm joints are fully seated—no visible gaps or height differences.

## 7.2 Short-side connection and hard-to-reach areas (angle-tap / pull bar)

• Where angling is restricted (end panels near the wall), use a tapping block or pull bar to close joints gradually with light taps.

• Tap progressively—avoid heavy impacts that can damage the profile.

# 8. Finishing Details

## Detail work

• Door frames: undercut jambs and casings so the laminate can move freely under trim. Do not pin the floor.

• Pipes: drill an oversized hole (pipe diameter + expansion allowance) and use trim rings/escutcheons to cover.

• Transitions: use T-moldings/thresholds where required, especially between rooms, at exterior doors, and at large spans per local practice.

• Remove spacers after installation and install baseboards/quarter round on the wall (never fastened through the floor).