

Subfloor Technical Information

Substrates

All surfaces must be dry, smooth and level with a tolerance in plane of 1/8" (3.2mm) within 10 ft. (3 meters). They must be structurally sound, solid, well fastened, clean and free from dust, oil, grease, paint, wax and old adhesive. Check for curing and parting compounds, surface hardeners and sealers which are known to interfere with the adhesive bond to concrete, as well as loosely bonded toppings, primers or any other deleterious substances that may prevent or reduce adhesion. Do not apply to gypsum-based surfaces patch or underlayment! These materials may have lower compression strength and can deteriorate under exposure to moisture or water vapor. For properly leveled or patched substrates, use cementitious self-leveling polymer-modified portland cement based underlayment which has a minimum compressive strength of 3,500 PSI (ASTM-109-modified), for filling, smoothing or leveling subfloor imperfections and irregularities. (Example: Ardex Self-leveling Cement).

Building Conditions

As with all flooring installations, the site must be climate controlled with its furnace and A/C installed and operating at least 72-96 hrs. prior to installation and at temperature readings between 60 - 80 F with 45-70% humidity. A moisture barrier with a permeability of less than 0.2 metric perms as measured according to the ASTM-96 standard should be installed under floors that are on or below-grade. A 6 mil. polyethylene film or equivalent is generally used.

New Concrete

New concrete floors should be constructed, finished and cured (minimum 30-60 days) in accordance with the American Concrete Institute (ACI) 302 "Guide for Concrete Floor and Slab Construction" (Class 2 or 4) with a minimum compressive strength of 3,500 PSI (246 kg/cm). Before starting installations on concrete subfloors, moisture test must be conducted. The Anhydrous Calcium KIT (calcium-chloride) has been designed to produce qualitative and quantitative results. Emission of moisture through the subfloor should not exceed 3 pounds (1.36 kg) per 1,000 sq.ft. (93m per 24 hrs.). Alkali salts can be carried to the surface of concrete subfloors during curing or where excessive moisture conditions exist. These deposits can create adhesive bond failures. The suitability of the slab can be determined with the use of pH testing paper or sticks. It is suitable to install the flooring if the pH is under 10. Concrete should not be sealed.

Wood Subfloors/ Underlayments

The minimum recommended thickness for underlayment panels is 1/4" (6.4 mm), smooth to prevent telegraphing, resist indentation, should not contain solvents or surface voids. Preferred underlayments should have the APA trademark. Multiply and teclpy underlayments have been approved as is APA - AC/BC EXTERIOR. Products such as OSB, Chipboard, Flakeboard and Masonite are not approved. The subfloor over which the underlayment will be installed should be smooth, dry, properly fastened and free of joint swelling, warping or delamination.

Allow panels to acclimate to environmental moisture conditions. You'll need to glue and staple the plywood down. All seams and voids can be flashed with cementitious patching cement (example: Ardex Feather Finish). Next sand across the joints to the width of one foot on either side so the plywood seams don't show through. Globus Cork Inc. does not warrant underlayment performance.

Radiant Heated Floors

Install Globus Cork tiles only with maximum surface temperature of 80 F (27 C). Do not install over existing vinyl floors and /or old residual adhesive. Cover existing resilient flooring or tile installed over suspended wood floors with a recommended underlayment panel. If removal of resilient flooring is necessary, the procedures and recommendations for their removal should be strictly followed according to the "Recommended Work Practices For The Removal Of Resilient Floor Coverings", published by the RFCI. If chosen to cover the existing floor covering, a latex-modified Portland cement-based material with a minimum thickness of 1/4" (6.4mm) should be employed. Cork tiles must be acclimated to room temperature and humidity levels for 4 days prior to installation or shrinkage will occur after installation. Temperature readings must be between 60 - 80 F with 45-70% humidity prior to and during installation.

Treating Existing Ceramic Tile Floors

If you have ceramic or stone tiles, be sure the tiles are solid, not hollow and that there are no voids. If you have loose tiles, you'll need to remove all the loose ones. If the tiles are secure and not loose, then you can float a cementitious patching cement over tiles. Do Not use DashPatch or a gypsum-based product. Only a cementitious product will be strong enough to stand up to our adhesive.

You can also use a self-leveling cement to produce a flat surface, making it free of all deflections, grout lines and tile cushioning. If you use a self-leveling cement such as Ardex, be sure to let it dry several days as recommended by the manufacturer. Once the floor is dry, scrape any bumps that you can see. The sub-floor must be flat and smooth and free of all paints, dirt, oil, grease and other foreign matter. Remember that the cork tiles are only 3/16" thick and any underlying imperfections will telegraph through the tiles.