

PRODUCT DESCRIPTION

AP-520 is an acrylic, roller or trowel applied pressure-sensitive adhesive used for the installation of vinyl and rubber flooring products. AP-520 is water-based and VOC free yet is highly aggressive and has a high resistance to moisture and plasticizers.

AP-520 has excellent initial grab and shear strength, making it ideal for fast track construction and is suitable for heavy traffic or rolling loads. AP-520 has an extremely long working time for ease of installation and is immediately usable, even for heavy foot traffic, rolling loads and heat welding, improving installation completion times even further.

TECHNICAL INFORMATION

Unit Size	3 Gallon
VOC:	0.0 g/l
ASTM F2170 RH Limit:	90%
ASTM F1869 MVER Limit:	6 lbs.
ASTM F710 pH Limit:	7-9
ASTM D7149 Freeze Thaw:	5 Cycles at 0° F
Coverage Rate:	
3/8" Nap Roller:	1200 sq. ft. per unit
1/32" x 1/16" x 1/32" U Notch Trowel:	675 sq. ft. per unit
Porous Flash Time:	20 – 30 mins.
Non-Porous Flash Time:	30 – 45 mins.
Working Time:	3 hours
Light Foot Traffic:	Roller – Immediate; Trowel – 24 hours
Heavy Foot Traffic and Rolling Loads:	Roller – Immediate; Trowel – 72 hours
Heat Welding:	Roller – Immediate; Trowel – 24 hours
Shelf Life:	1 year from date of receipt
Storage Temperature:	50° - 85° F (10° - 29.5° C)

Technical Documentation visit: www.excelsiorproducts.net or send an e-mail to:

solutions@rhctechical.com

Technical Support: **solutions@rhctechical.com**

SUSTAINABILITY

Verified "Red List Free" by the International Living Future Institute (ILFI)

Qualifies for **LEED Credits**: www.excelsiorproducts.net

1. PRODUCT LIMITATIONS

- Prior to acceptance of this document refer to web-site www.excelsiorproducts.net to confirm that you have the most current revision.
- All referenced times are subject to substrate porosity and texture, as well as ambient conditions, such as air temperature, relative humidity and substrate temperature – actual times may vary based on these conditions.
- Adhesive cannot resist dimensional instability of flooring products, which may cause gapping, cupping, buckling and/or edge lifting.
- Do not use outdoor installations or over existing resilient flooring products or adhesives.

2. PRE-INSTALLATION CHECKLIST

- Consult all associated product literature concerning installation and warranty prior to installation.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Inspect all materials to ensure there is no leakage or damage.
- Do not stack pallets to avoid damage.
- Ensure installation area and material storage area temperatures are between 65° F (19° C) and 85° F (30° C) and 40% - 65% RH for at least 48 hours before, during and after installation.
- Ensure HVAC system is operational and fully functioning at normal operating conditions 48 hours prior to, during and for the life of the installation.
- Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and for the life of the installation.
- Ensure concrete moisture testing is conducted or scheduled to be conducted prior to flooring installation.
- Ensure all vents, walls, moldings and/or doorways are protected with tape or plastic prior to installation.
- Test substrate for porosity in order to determine the installation method necessary.
- Do not proceed with installation until all conditions have been met.

3. SUBSTRATE PREPARATION

In regards to substrate preparation when mechanical sanding, grinding, shot blasting and vacuuming always follow the Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesives", and all applicable local, state, federal and OSHA requirements in regards to Asbestos and Silica containment regulations.

All substrates must be prepared according to ASTM F710 or ASTM F1482, as well as applicable ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material or foreign matter.

All substrates must have any and all existing adhesives, materials, contaminants or bond-breakers mechanically removed via scraping, sanding, grinding

or buffing with a 25 grit DiamaBrush Prep Plus tool prior to adhesive installation. In extreme situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a HEPA approved vacuum with a flat vacuum attachment to remove all surface dust. ***Sweeping without vacuuming will not be acceptable.***

Do not use solvent/citrus based adhesive removers prior to installation.

CONCRETE SUBSTRATES

All concrete must have a minimum compressive strength of 3500 PSI and be prepared in accordance with ASTM F710. When flooring is being installed directly over concrete, concrete surfaces that have an ICR Concrete Surface Profile (CSP) over 4 should be smoothed with a self-leveling underlayment or a patch to prevent imperfections from telegraphing through flooring materials.

All substrates must be tested per ASTM F3191 to confirm porosity. Use a pipette or equivalent to conduct three tests by placing a .05 mL (1/4" wide) droplet of clean, potable water onto the surface. If the substrate absorbs water within 60 seconds, the substrate is considered porous. Conduct 3 tests for the first 2000 sq. ft. and one for each additional 3000 sq. ft., or at least one per room. All other substrates that do not meet this requirement are considered non-porous. Ensure that all non-porous substrates are not contaminated with any aforementioned contaminants.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product, such as Excelsior MM-100 Moisture Mitigation, must be installed prior to proceeding with installation.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as the Excelsior MM-100 or an epoxy coating, ensure that coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Adhesive flash times may be extended due to the lack of porosity.

GYPHUM BASED SUBSTRATES

Gypsum-based substrates must have a minimum compressive strength of 3500 PSI. Gypsum substrates that do not meet this requirement may have one coat of the Excelsior MM-100 installed to improve the top layer bonding strength of the substrate.

Substrate must be structurally sound and firmly bonded to subfloor. Any cracked or fractured areas must be removed and repaired with a compatible patch or repair product.

Follow instructions for installation over a gypsum substrate. New or existing gypsum substrates may require a sealant or primer. Follow all manufacturers' recommendations regarding preparation for resilient flooring installation.

WOOD SUBSTRATES

Wood substrates must be prepared in accordance with ASTM F1482. Prior to installation, moisture retardant sheeting with a maximum rating of 1.0 perm must be installed beneath the wood subfloor, overlapped at least 8". For standard installations, use Underlayment Grade plywood with a minimum thickness of 1/4" thick and a fully sanded surface.

Other wood subfloor materials, such as OSB, lauan, particleboard, chipboard or cementitious tile backer boards, are not acceptable subfloors. Avoid preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring.

Wood subfloor deflection, movement, or instability will cause the flooring installations to release, buckle or become distorted. As such, do not use plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Only install over a properly constructed sleeper system (wood subfloor system over concrete, consult the technical department for further details) and do not install directly over Sturd-I-Floor panels.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/grinded and cleaned of any residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Any deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate.

EXISTING FLOORING SUBSTRATES

Existing rubber flooring and LVT, as well as the adhesives used to install them, must be completely removed from the substrate prior to installation.

Existing VCT, VAT, quartz tile, solid vinyl tile, sheet goods, hardwood flooring, asphaltic materials and existing adhesives or adhesive residue must have a compatible cementitious patch or underlayment installed over them prior to installation. Existing hardwood flooring requires suitable underlayment grade plywood be installed over the substrate.

Adhesive may be installed over existing stone flooring substrates, such as terrazzo, porcelain or ceramic tile.

Ensure existing flooring is a single layer of material and that all materials are clean, dry, sound, solid, well adhered and free of site-applied finishes, waxes and/or contaminants. Any and all loose tiles must be removed and repaired or replaced. All grout lines and irregularities must be filled and troweled flush with a suitable primer and patch such as the Excelsior NP-230 and CP-300 to prevent telegraphing of the existing floor. All existing flooring substrates that are outside of flatness tolerances that cannot be repaired with the Excelsior CP-300 patch should be leveled with the SU-310 self-leveling underlayment to achieve a smooth, flat substrate.

All existing flooring substrates must have any and all site-applied finishes and/or waxes completely removed prior to flooring installation in order to ensure a proper adhesive bond. For mechanical removal, use a low-speed buffer and 40-60 grit sandpaper. Properly prepared substrates should not have any remaining gloss or sheen. For chemical removal, ensure chemical treatments will not disrupt adhesion of the existing flooring to the substrate. Be sure to rinse the existing flooring adequately with clean, potable water to remove any and all chemicals from the surface of material.

Do not install flooring until any moisture on, between or below existing flooring has completely dried. Ensure all dust; dirt and debris are removed prior to flooring installation.

RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is turned off 48 hours prior to installation and remains off during the entire installation. The radiant heat may be turned on 48 hours after installation and the normal operating temperature should be increased gradually over the course of 24 hours. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

4. CRACKS, JOINTS & VOIDS

All cracks, joints and voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants and be repaired with a suitable cementitious patch.

Due to the dynamic nature of concrete slabs, manufacturer **cannot** warranty installations over expansion joints, cracks or other voids such as control cuts, saw joints and moving cracks. Do not install flooring or use adhesives directly over any expansion joints.

All expansion joints should have a suitable expansion joint covering system installed to allow expansion joint to freely move.

5. PRODUCT INSTALLATION

ROLLER APPLICATION INSTRUCTIONS:

Carefully open spout on container lid. Pour a required amount of adhesive into a sturdy paint tray. Using a 3/8" nap roller, apply adhesive thinly and evenly at prescribed spread rate. Do not allow adhesive to pool or puddle. Replace rollers at regular intervals and between applications to prevent accumulating dry adhesive. After application, allow adhesive to flash completely. Adhesive should not transfer to fingertips when lightly touched. Flash times may vary depending on substrate porosity, coverage rate and ambient conditions. Install flooring within 3 hours of application to ensure proper adhesion. Immediately after installation roll the flooring material with a 3 section, 100 lb. floor roller in both directions, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with the larger roller. Visually inspect the installation to ensure that adhesive has not gotten onto the surface of the flooring material.

TROWEL APPLICATION INSTRUCTIONS:

Although AP-520 is a roll-on adhesive, it can be applied by trowel if desired even though it is not the viscosity of a traditional Trowelable adhesive. Apply adhesive using a 1/32" x 1/16' x 1/32' U-notched trowel. Spread the adhesive evenly holding the trowel at a 60° angle. Be sure when troweling not to leave excessive ridges as these will telegraph through the floor. Replace trowels with worn notches.

Do not re-notch worn trowels. Allow the adhesive to flash completely. Adhesive should not transfer to fingertips when lightly touched. Flash times may vary depending on substrate porosity and ambient conditions. Install flooring within 3 hours of application to ensure proper adhesion.

Immediately after installation, roll the flooring material with a 3 section, 100lb. floor roller in both directions, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller. Visually inspect the installation to ensure that adhesive has not gotten onto surface of the flooring material.

6. CLEAN-UP

Wet adhesive or adhesive residue should be removed immediately using a clean cloth and a solution of Excelsior NC-900 and clean, potable water. Tools and materials where adhesive has dried can be cleaned with denatured alcohol, mineral spirits or equivalent solvent adhesive cleaner. ***Do not apply solvents directly to flooring materials.***

7. WARRANTY

Manufacturer provides a 1 year material & labor warranty for all installations where adhesive is properly installed. See Excelsior adhesive warranty for more information.

FOR PROFESSIONAL USE ONLY

PLEASE CONSULT ALL ASSOCIATED INSTALLATION, TECHNICAL AND SAFETY DATA SHEETS AS WELL AS COMPLETE WARRANTY INFORMATION PRIOR TO INSTALLATION.