

PRODUCT DESCRIPTION

Excelsior AW-510 Acrylic Wet-Set Adhesive is an acrylic wet-set adhesive used for the permanent installation of dimensionally stable Solid Vinyl Tile, LVT, LVP, approved Rubber, Resilient Quartz flooring, and stair tread products over porous and non-porous substrates in indoor applications; it is a low odor, non-flammable, solvent-free and ready to use product.

AW-510 Acrylic Wet-Set adhesive is a trowel applied adhesive that can be used to install Rubber Tiles, Vinyl Tiles, & Stair Treads in either a wet-set, tacky-wet or dry-set method of application. Installation methods of the products will vary with the application method of the adhesive, but the resulting installation will end up with a non-releasable firm set adhesive bond.

Product Color & Appearance	Off-White Paste
Product Packaging Options	1 Gallon Unit 4 Gallon Unit
Coverage Rate ¹	160 – 225 sq. ft. per Gallon, based on selected trowel
Setting Characteristics @ Full Cure ²	Firm-Set Adhesive

MOISTURE REQUIREMENTS

Moisture Control Properties	Not a Moisture Inhibitor or Moisture Mitigation Product
ASTM F2170 – RH Limit	90%, <i>in situ</i>
ASTM F1869 – MVER Limit	6 lbs. / 1,000 sq. ft. / 24 hours
ASTM F710 – pH Limit	≥ 7 - ≤ 10

PRODUCT PERFORMANCE PROPERTIES

VOCs (California Rule # 1168 SCAQMD)	≤ 0.1 grams / Liter
ASTM D6004 – Adhesive Shear Resistance	Excellent
ASTM D6862 – 90° Peel Resistance	Excellent
ASTM D7888 – Plasticizer Resistance	Excellent
ASTM D7149 – Freeze Thaw Stability	Excellent Up to 5 Cycles, Not falling below 0° F
ASTM F1337 – Shelf-Life ³	2 Years from Manufacturing Date
Reading Manufacturing Date Code	B210201515293 Ignore the B, focus on the 210201 which is Year (21) Month (02) and Day (01), ignore the balance as it is for batching information for manufacturer Located on lower left corner of the label under the UPC code
Service & Storage Temperature	60° - 85° F
Indoor / Outdoor Suitability	Indoor Use Only

APPLICATION & WORKING PROPERTIES

Porosity or **Absorption** in relation to the substrate is *the process by which a liquid is drawn into and tends to fill permeable pores in a porous solid body* as defined in ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring. It is critical to determine porosity or absorption rates of the substrate prior to the application of the adhesive to determine the appropriate application method. It is a common misunderstanding that all concrete slabs are porous and while that probably is true, the finishing methods used today makes the non-absorptive until the top layer is removed, which then they become absorptive or somewhat absorptive depending upon the testing performed using the ASTM F3191 method.

Wet-Set Application Method – Approved for Rubber and Vinyl Products

Utilized on Porous or Absorptive Substrates only. Adhesive is ready for installation of flooring, usually within 5-10 minutes of application. Follow the working time listed and adjust for conditions. Placing flooring into adhesive past the working time will result in a weak bond.

Wet-Set application method provides the best bond and the best seam visibility performance with vinyl products.

Tacky-Wet Application Method – Approved for Rubber Products Only

Utilized on Non-Porous or Non-Absorptive Substrates only. Adhesive is ready for installation of flooring, usually within 15-20 minutes of application. Can be tested by observing the valleys of the trial ridges and they will be dry, and the ridges will be tacky to the touch but collapse with wet adhesive underneath with moderate pressure from the finger.

Tacky-Wet application method provides a better bond and better seam visibility performance with vinyl products.

Dry-Set Application Method – Approved for Luxury Vinyl Plank & Tiles Only

Utilized on Non-Porous or Non-Absorptive Substrates only. Adhesive is ready for installation of flooring, usually within 30 minutes of application. Can be tested by touching the trowel ridges and they will dry to the touch with no transfer to the finger with moderate pressure.

Dry-Set application method provides a good bond but reduced seam visibility performance with vinyl products.

Recommended Trowel Size ⁴	Rubber Products	Vinyl Products
Porous Substrates, Wet-Set	1/16" x 1/16" x 1/16" V Notch	1/16" x 1/16" x 1/16" V Notch
Non-Porous Substrates, Tacky-Wet	1/16" x 1/32" x 1/32" U Notch	<i>Not Recommended</i>
Non-Porous Substrates, Dry-Set	<i>Not Recommended</i>	1/16" x 1/32" x 1/32" U Notch

Flash / Open Time ⁵	Rubber Products	Vinyl Products
Porous Substrates, Wet-Set	Approximately 10 minutes	Approximately 10 minutes
Non-Porous Substrates, Tacky-Wet	Approximately 15 minutes, Must Transfer to Tile	<i>Not Recommended</i>
Non-Porous Substrates, Dry-Set	<i>Not Recommended</i>	Approximately 30 minutes, Dry to Touch, No Transfer to Finger

Working Time ⁶ (Flooring Installed & Rolled)	Rubber Products	Vinyl Products
Porous Substrates, Wet-Set	60 minutes	60 minutes
Non-Porous Substrates, Tacky-Wet	60 minutes	<i>Not Recommended</i>
Non-Porous Substrates, Dry-Set	<i>Not Recommended</i>	75 Minutes

COVERAGE, CLEAN UP, WAIT TIMES

Coverage Per Gallon / Trowel	Per Gallon / Per Unit
1/16" x 1/32" x 1/32" U Notch	225 sq. ft. / 900 sq. ft.
1/16" x 1/16" x 1/16" V Notch	160 sq. ft. / 640 sq. ft.

Adhesive Clean Up	
	Do not allow adhesive to dry on the surface as it may permanently discolor the surface. Wet adhesive is recommended to be cleaned with warm soapy water. Mineral spirits and solvents should not be applied directly to flooring and used sparingly as it could damage the surface. Should be rinsed with

neutral cleaner and clean water after using mineral spirits.

Allotted Timeframes for Post-Installation Activities

Heat Welding & Light Foot Traffic ≥ 24 Hours
Heavy Foot Traffic & Light Rolling Loads ≥ 48 Hours
Maintenance Activities ≥ 72 Hours
Heavy Rolling Loads ≥ 120 Hours

IMPORTANT INFORMATION CONCERNING ADMIXTURES

Excelsior AW-510 is approved for use over concrete substrates containing admixtures.

In situations where admixtures or additives are added to the concrete mix for the sole purpose of controlling moisture, we do accept those substrates and consider them acceptable if the following is verified and completed prior to installation.

- We want to clearly indicate the responsibilities at the time of application and moving forward for warranty purposes.
- If the product works as it is intended, it should change the porosity (absorption rate) of the concrete which would alter the application process of the adhesive based on the adhesive chosen for the project, for example a wet set for porous applications would now be unacceptable for the project.
- We require porosity testing at the time of application to ensure the application method of the adhesive is performed correctly.
- We also require bond tests in several areas to ensure the slab is suitable for bonding.

If these things are done (as indicated in our installation information) there should be no other compatibility issues with the moisture control admixtures in the concrete substrate. Typically, any performance warranties related to the admixtures, including material releasing from the substrate due to issues with the admixture is covered under the admixture manufacturer's warranty and added insurance policies related to the project.

ADHESIVE BOND TEST REQUIREMENTS

An adhesive bond test must be performed using actual flooring and adhesive materials being installed to determine adequacy. Test areas should be a minimum of 36" x 36" and remain in place for at least 72 hours prior to evaluation for bond strength to the substrate. Substrate should be prepared in the same manner as the installation will occur to ensure the bond test results are relative to the installation. This will help to ensure application of the adhesive and the bond achieved is adequate for the project to continue.

SITE REQUIREMENTS

- During acclimation, the site must be fully enclosed, weather tight, and material must be in the installation area with the HVAC system functional and operating at desired service temperatures for a period of 48 hours prior to installation, during the installation and for the service life of the installation afterwards.
- It is recommended to maintain an ambient relative humidity between 40% and 60% for a period of 48 hours prior to installation, during the installation and for the service life of the installation afterwards.

NON-APPROVED SUBSTRATES

- Concrete substrates that have been abated or prepared with chemical adhesive removers, solvents, or chemical cleaners.

APPROVED SUBSTRATES

- Concrete above, on, or below grade; properly prepared to receive moisture sensitive resilient flooring that has been in place a minimum of 45 days.
- Properly prepared APA rated plywood underlayments.
- Properly prepared Portland cement-based patches & underlayments.
- Properly prepared & primed Gypsum cement-based underlayments meeting the requirements of ASTM F2419 – Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.
- Radiant-heat systems that have been properly installed and operating at a surface temperature no higher than 85° F (29° C).
- Properly installed and prepared moisture mitigation systems.

SUBSTRATE REQUIREMENTS

- All substrates must be prepared according to the information contained within the product installation instructions.
- Concrete substrates, whether on-grade and/or below grade must have an intact and effective moisture vapor barrier which meets the current requirements of ASTM E1745.
- 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, 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.

DISPOSAL INFORMATION

- Dispose in accordance with local, state, and federal regulations.
- Do not allow products to get into drains, watercourses, or landfills in a wet state. Hardened product residues are considered construction waste.
- Empty packaging is recyclable.

ATTRIBUTES, CERTIFICATIONS, & REGULATORY INFORMATION

- Manufactured in Olive Branch, Mississippi
- Health Product Declaration (HPD) Available
- Contributes to LEED v4/4.1 Requirements
- Achieved FloorScore Certification
- Meets California Department of Public Health V1.2 (CA Section 01350) requirements
- Meets South Coast Air Quality Management District rule #1168 requirements
- Red List Chemical Free
- Does Not Contain Recycled Materials
- California Prop 65 Labeling - To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

SUPPORT & ADDITIONAL DOCUMENTATION

Product Support Phone & Email	(844) 393 – 4044 / solutions@rhctechnical.com
Technical Documentation	www.excelsiorproducts.net
Associated or Related Documentation	Excelsior Products Warranty Health Product Declaration FloorScore Certification SDS Sheet

¹ Coverage Rates are approximate and subject to the level of porosity as well as ambient conditions, angle of the trowel, age of the trowel, etc. Actual results may vary.

² Full cure is typically achieved within 30 days of application of adhesive and covering with approved resilient floor covering utilizing the appropriate methods for the conditions of the substrate in which adhesive is being applied.

³ Shelf Life depends on proper storage within service & storage temperatures in unopened original containers.

⁴ Trowel Notch Dimensions are standard Depth x Width x Space.

⁵ Flash Time is the time allowed between the application of the adhesive and the placement of the flooring. This will vary depending on site conditions including temperature humidity, absorption rates, trowel wear, etc.; higher temps with higher humidity will be shorter than lower temps with lower humidity. Conditions listed are determined at 70° F (21° C) & 50% RH.

⁶ Working Time is the time allowed between the adhesive being ready for placement of the flooring and when the adhesive should be completely covered with flooring and rolled. This will vary depending on site conditions including temperature humidity, absorption rates, trowel wear, etc.; higher temps with higher humidity will be shorter than lower temps with lower humidity. Conditions listed are determined at 70° F (21° C) & 50% RH.

The contents contained within this Technical Data Sheet (TDS) may be utilized or copied into another projected related document, but this original document will remain in effect at the time of product installation, this TDS shall not be supplemented or replaced by the resulting project documentation. **Any alterations to the wording or requirements contained in or derived from this document shall void all related warranties.**

See installation information and documents for full installation details regarding substrates, job site conditions, & acclimation procedures. The intent of this document is to provide technical and performance properties of the mentioned adhesive as well as define the intended method of installation for the products in which the adhesive is approved for use. Any installation guidelines are to be considered as a starting point at a minimum for a successful installation. We rely on the expertise and professionals that are installing the products to adjust based on site conditions. Anything that appears to be a link, is and leads to additional information if necessary or provides a means of contact in the event there are any additional questions. Prior to acceptance of this document refer to the product website to confirm that you have the most current revision.

These products are intended for installation by professionals, prior to use the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability.