TUFFGRIP UNLIMITED

TECHNICAL DATA SHEET Page 1 of 4

APPROVED FLOORING TYPES

WOOD: Acrylic Infused Plank, Bamboo, Cork (flooring, cork-backed hard surface, underlayment), Hardwood (engineered, parquet, solid) **RESILIENT:** Rubber (crumb)

PRECAUTIONARY NOTE:

• Solid hardwoods must be approved/designed for glue down.

APPROVED SUBSTRATES & SURFACES

- APA underlayment grade plywood and OSB
- Association grade particleboard
- Cement backer board
- Cementitious and anhydrite screeds
- Concrete and radiant heated subfloors that do not exceed 85°F (30°C)
- Existing well-bonded non-cushion-backed vinyl, tile and sheet flooring
- Fully secured cork underlayments
- Gypsum and lightweight concrete (primed with a universal primer)
- Terrazzo (properly prepared with all waxes and surface finishes removed)
- Well-bonded residue from cutback adhesives

SUBSTRATE TESTING

RH - No testing required: 100% [ASTM F2170] **pH -** No testing required: 5-14 [ASTM F710] **MVER -** No testing required [ASTM F1869] **POROSITY -** CSP 1+, must pass [ASTM F3191]

PRECAUTIONARY NOTE:

• Moisture protection available only when using moisture barrier trowels.

SUBSTRATE & SURFACE PREPARATION

Follow flooring manufacturer's guidelines. Substrate must be prepared per ASTM F710 standards including, but not limited to the following:

- Concrete floors must be dry, clean, smooth and structurally sound. They shall be free of any foreign materials that might prevent adhesive bond, including dust, dirt, solvent, paint, wax, oil, grease, contaminants from sweeping compounds, residual adhesive, adhesive removers, incompatible sealers, fire-retardant chemicals, fungicides, release agents, alkaline salts, excessive carbonation, laitance, mold, mildew, and curing, sealing, hardening or parting compounds.
- Fill all surface cracks, grooves, depressions, control joints and non-moving joints with moisture resistant patching and self-leveling compounds, allow to fully cure and correct high spots before applying adhesive.
- The substrate, adhesive and flooring must be acclimated in an enclosed building with the HVAC operational at service temperature, between 60-95°F (15-35°C), and between 30-65% relative humidity, for at least 72 hours prior to, during, and permenately after installation.
- When installing over radiant heated subfloors, turn the heat off for 24 hours before, during and after installation. Failure to turn the heat off may result in shortened working time of the adhesive. When turning radiant heat back on, raise it incrementally, not to exceed a change of more than 5 degrees per hour to a maximum of 85°F (29°C).
- Wood underlayments must have a moisture content below 12% using a Tramex or Delmhorst moisture meter.

PRECAUTIONARY NOTES:

- When installing thin-gauge wood (solid or engineered), irregular substrates may telegraph through as adhesive pulls wood down during curing stages. Therefore, substrates must be properly leveled (see ASTM F710) to prevent telegraphing.
- Concrete must be placed in strict accordance with applicable standards and specifications. An intact moisture vapor
 retarder must be present below the concrete (see ASTM E1745), must be fully cured (at least 45 days), porous (see
 ASTM F3191), without hydrostatic pressure, without pressurized liquid from any source, and free of surface alkaline salt
 crystallization.
- When used as a concrete moisture vapor barrier, substrate must be porous per ASTM F3191.
- Flooring must be acclimated per manufacturer's guidelines.





Page 2 of 4

APPLICATION INSTRUCTIONS

Follow flooring manufacturer's guidelines for layout, design and any special precautions for installation.

- **1.** Spread adhesive using required tools (not all tools offer moisture protection).
- 2. Install flooring immediately after adhesive is spread, per the instructions below, dependent upon desired application method. Working time ~45 minutes under acceptable temperature and humidity. Periodically lift flooring material to verify proper transfer of adhesive (if transfer is not achieved, remove dried adhesive and reapply).
 - Acrylic infused plank, bamboo, cork-backed hard surface, Hardwood (engineered, parquet, solid)
 - Secure initial row with approved blue tape to limit movement and hold patterns (tape strap joints as needed). When installing near a solid object or wall, use wedges to allow for expansion (allow 2 hours before removing wedges).
 - Cork (flooring, underlayment), crumb rubber
 - Use hand roller to work out trapped air (center to edge). Do not walk, kneel, or work directly on top of flooring without the proper use of knee-boards for at least 60 minutes after flooring is installed.
- 3. Immediately roll and cross roll floor with 75-100 lb roller within 2 hours to ensure proper adhesive transfer.

PRECAUTIONARY NOTES:

- Moisture protection applications must have 100% adhesive transfer.
- For installation instructions on wood over 5" wide or 6' long, call Technical at 877-238-3225.
- When installing unfinished wood, wait 72 hours before sanding.
- Reseal lid when not in use to protect product.

REQUIRED TOOLS AND COVERAGE

*Trowel dimensions are width X depth X spacing. Coverage is approximate and may vary depending on porosity of substrate and the angle at which the trowel is held.

FLOORING TYPES	TOC (IMAGES NOT		ESTIMATED COVERAGE	
BOND ONLY				
WOOD: Cork (flooring, cork-backed hard-surface, underlayment), Hardwood (parquet)	1/8" x 1/8" x 1/8" Sq Notch		60-70 ft²/gal	
WOOD: Acrylic Infused Plank, Bamboo, Hardwood (engineered, solid) RESILIENT: Rubber (crumb)	3/16" x 1/4" x 5/16" V Notch		Up to 50 ft²/gal	
MOISTURE BARRIER & SOUND CONTROL				
WOOD: Acrylic Infused Plank, Bamboo, Hardwood (engineered, solid [planks less than 6' long and 5" wide])	1/4" x 1/4" V Notch		25-30 ft²/gal	
WOOD: Acrylic Infused Plank, Bamboo, Hardwood (engineered, solid [planks greater than 6' long and 5" wide])	1/2" x 15/32" V Notch		Up to 20 ft²/gal	

^{*}It is the sole responsibility of the contractor/installer to determine the proper porosity of the subfloor, apply the correct amount of adhesive for the job conditions and ensure that all instructions, procedures and practices are strictly adhered to.





TECHNICAL DATA SHEET Page 3 of 4

TUFFGRIP UNLIMITED

CLEANING INSTRUCTIONS

While product is still wet: Use a damp cloth and water to remove.

While product is still soft: Use denatured alcohol, mineral spirits, or an adhesive remover/stripper. Always check compatibility on a piece of scrap flooring.

STORAGE

This product should be stored at temperatures between 50-90°F (15-32°C). While this product is freeze-thaw stable, it is necessary to protect it from freezing. Freeze/thaw stable to 10°F (-12°C).

CAUTION

DO NOT take internally. If swallowed, DO NOT induce vomiting. Call a physician immediately. KEEP OUT OF REACH OF CHILDREN.

WARRANTY INFORMATION

For warranty information, call Technical Services at 877-238-3225, visit us on the web at www.my-nfp.com or e-mail us at customerservice@nationalflooringproducts.com. Flooring manufacturer's and National Flooring Products written preinstallation and installation instructions must be strictly followed or the National Flooring Products warranty will be void.





TUFFGRIP UNLIMITED

PRODUCT INFORMATION

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PRODUCT CHARACTERISTICS	Product Classification	Unlimited moisture barrier, elastomeric adhesive	
	Base Chemistry	Modified urethane (isocyanate free)	
	Curing Method	Moisture cure	
	Appearance/Color	Off-white	
	Odor	Extremely low	
	Consistency	Smooth, medium viscosity liquid	
	Application	Easy troweling	
	Flammability	Non-flammable	
	Freeze/Thaw	Stable to 10°F (-12°C) [3 cycles]	
	Shelf Life [Unopened Container at 70°F]	1 year	
TESTING	Moisture Control	Protects flooring from unlimited (100% RH) substrate moisture vapor	
	RH [ASTM F2170]	No testing required (100%)	
	рН	No testing required (5-14)	
	MVER [ASTM F1869]	No testing required	
	Porosity [ASTM F3191]	Must pass (CSP 1+)	
ТІМЕ	Open Time	0 min	
	Flash Time	N/A	
	Working Time	45 min	
	Cure Time	12 hrs	
	Pot Life	N/A	
TRAFFIC	Light Traffic	6 hrs	
	Heavy Traffic	6 hrs	
	Rolling Loads	N/A	
ACOUSTICS*	sтс	62 dB	
	ІІС	68 dB	
	Delta IIC	N/A	
	Solvents	No	
	Isocyanates	No	
	VOC Wet Applied [g/L] [SCAQMD Rule #1168]	< 0.1 g/L	
SUSTAINABILITY	Bio-Based Content	No	
	Post-Consumer Recycled Content	No	
	Mineral Abundant Content	Yes	
	LEED v4/4.1 Points	Contributes to low emitting materials	
	Certifications	FloorScore®, Green Label Plus®, GREENGUARD®	
	Transparency	N/A	
WADD-11-	Duration	10-Year Performance Warranty	
WARRANTY**	Coverage	Bond, 100% Substrate Moisture Vapor	
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^{*}IIC (delta) and STC (delta) ranges are flooring assembly specific based on third party testing and verification in a controlled environment. For any questions or further information, please contact National Flooring Products Technical at 877-238-3225.

**For warranty information, view Product Warranty Certificate.



