GENERAL FORMULATIONS

GF ROUGHMARK® APPLICATION GUIDE

This guide establishes the required conditions, application procedures, and risk disclosures for GF RoughMark® products. Installation outside the parameters defined in this document places the outcome outside General Formulations' specified application window and transfers responsibility for the result to the installer and/or customer. A Pre-Installation Checklist is included as Addendum A.

INTRODUCTION

GF RoughMark® products are engineered for graphics applied to textured architectural surfaces—brick, concrete block, poured concrete, stucco, stone, and other challenging wall substrates. Unlike smooth interior wall applications, textured surface installations introduce variables that require pre-installation evaluation, deliberate material selection, controlled application techniqfue, and realistic customer expectations.

This guide is organized around four pillars that account for the most common sources of avoidable failure in textured wall graphic installations: Surface, Material, Method, and Risk. Working through each pillar in sequence—before production begins—is the most reliable way to produce a successful installation and protect all parties when conditions fall outside the recommended application window.

GUIDE FRAMEWORK: FOUR PILLARS

PILLAR	CORE QUESTION	PRIMARY INSTALLER FOCUS
Surface	What are we sticking to?	Substrate type, texture, sealed vs. unsealed condition, paint cure, moisture, age, porosity, and environment exposure.
Material	What are we installing?	Film construction, adhesive behavior, print system, laminate selection, curing requirements, and product fit for the surface.
Method	How are we installing it?	Dry application, layout planning, heat-and-roll technique, tool selection, speed, pressure, overlap, and rework.
Risk	What could go wrong?	Risk classification, identified failure modes, test panel results, environmental exposure factors, documentation, and customer expectation-setting.

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SURFACE: WHAT ARE WE STICKING TO?

Surface evaluation is the first and most important step in a successful RoughMark® installation. Textured architectural surfaces vary widely in porosity, profile, coating integrity, moisture movement, mortar depth, age, and environmental exposure. The installer must evaluate both the surface and the surrounding environment before selecting a material or committing to an installation method.

The single most important distinction in textured surface installations is whether the surface is sealed or unsealed. A sealed surface—one protected by paint, masonry sealer, or a bonded coating—provides a more uniform adhesive contact plane, reduces moisture migration through the substrate, and produces more predictable long-term performance. An unsealed surface—raw brick, uncoated concrete block, bare stucco, or open-pore masonry—introduces variables that cannot be fully controlled through product selection or installation technique alone.

Not all concrete and brick sealers are equivalent for wall graphic applications. Penetrating sealers and film-forming sealers designed to repel water may significantly reduce surface energy, making the substrate more difficult for an adhesive film to wet out than an unsealed surface. Silicone-based, wax-based, or hydrophobic repellant sealers are particularly problematic. Before installing on any sealed masonry surface, confirm the sealer type and test adhesion with a patch panel. If the sealer has repellant characteristics, standard surface cleaning will not correct the issue—the sealer must either be fully removed or the graphic cannot be installed on that surface.

Surface Evaluation Checklist

- ✓ Identify the substrate: brick, concrete block, poured concrete, stucco, stone, tile, or painted masonry.
- ✓ Determine whether the surface is sealed or unsealed, painted or unpainted, new or weathered, wet or dry.
- ✓ Inspect for contamination: dust, grease, loose mortar, crumbling masonry, efflorescence, peeling paint, or coating failure.
- ✓ Evaluate texture profile: high points, valleys, mortar joint depth, grout channels, protrusions, and recesses.
- ✓ Confirm the wall system is dry and not actively transmitting moisture through the substrate.
- ✓ Review environmental exposure: rain, humidity, direct sun, freeze/thaw cycling, and temperature stability during the first 72 hours post-installation.

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SUBSTRATE SUITABILITY MATRIX:

SURFACE CONDITION	RISK	WHAT TO EXPECT	GF RECOMMENDATION
Sealed brick or sealed concrete	Low	Improved adhesive wet-out, reduced moisture movement, and more predictable long-term conformity.	Recommended when the surface is clean, dry, and structurally sound.
Painted masonry, well-bonded paint	Low-Mod	Performance depends on paint cure, paint-to-substrate bond, and coating integrity.	Confirm paint cure and bond integrity before installation. See Paint and Coating Guidance.
Weathered masonry	Moderate	Porosity variation, surface dusting, and mortar condition can create inconsistent bond development.	Clean thoroughly and perform a test panel before committing to installation.
Unsealed brick, CMU, concrete, or stone	High	Moisture migration and deep texture contribute to mortar-line release, contour loss, and visual separation during temperature cycling.	Test panel required. Set customer expectations in writing before production.
Efflorescing, wet, crumbling, or deteriorating	Do Not Install	Bonding is compromised by salts, water migration, loose surface material, or structural instability.	Do not proceed until deficiencies are corrected.

TEMPERATURE AND ENVIRONMENTAL CONDITIONS

Ambient and surface temperature at the time of installation directly affects adhesive wet-out, film conformability, and initial bond development. All GF RoughMark® products carry a minimum application temperature of +40°F. The practical risk threshold for exterior and unsealed surfaces is meaningfully higher.

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TEMPERATURE / CONDITION	RISK	EXPECTED FAILURE MODE IF IGNORED	REQUIRED ACTION
Surface temp 60°F–95°F, dry, stable	Low Risk	No temperature-related failure expected under standard conditions.	Proceed using standard RoughMark® installation procedures.
Surface temp 50°F–60°F	Moderate Risk	Reduced adhesive tack and slower bond development. On unsealed or porous surfaces, edge lift may appear within days to weeks.	Acceptable for sealed or painted exterior surfaces with proper heat-and-roll technique. Not recommended for unsealed porous masonry. Test panel required.
Surface temp 32°F–40°F	High Risk	Compromised adhesive wet-out on all textured surfaces. On unsealed masonry, expect early edge lift and mortar-line release within days.	Test panel required on all surfaces. Do not proceed on unsealed exterior masonry. Document conditions and obtain customer approval.
Below 32°F, frost, or cold-soaked masonry	Do Not Install	Adhesive cannot achieve minimum wet-out. This is an installation environment failure, not a product failure.	Do not proceed. Reschedule when surface temperature exceeds 50°F.
Recent rain, visible dampness, or moisture >15%	High Risk	Moisture between adhesive and substrate prevents bond development. Bubbling, whitening, and lifting are likely.	Delay until the substrate is confirmed dry throughout the application area.
Freeze/thaw cycles expected within 72 hours	High Risk	Thermal cycling during initial bond development will stress the adhesive before full cure. On unsealed porous masonry, mortar-line release is significantly more likely.	Delay when possible. If proceeding: test panel, written customer acknowledgment, and 885AE required.

On highly porous, unsealed masonry exposed to moisture and repeated freeze/thaw cycling, graphics may release from deep mortar lines, grout channels, and surface recesses while remaining adhered to the high points of the substrate. This creates the visual appearance of graphic failure even when substantial adhesive bond remains on the primary contact surface. ***This is not a product defect.*** *It is the predictable result of applying a removable adhesive system to a porous, unsealed substrate under conditions outside the recommended application window. Sealed masonry significantly reduces this risk.*

Customer communication required: *When installing on unsealed exterior masonry with known freeze/thaw exposure, this behavior must be explained to the customer before production begins. Written customer acknowledgement is required. Use the Pre-Installation Checklist (Addendum A).*

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PAINT AND COATING CURE GUIDANCE

Painted surfaces must be fully cured and firmly bonded to the underlying substrate before installation. Under-cured paint can continue to release moisture or solvent vapor, causing bubbles, edge lift, adhesion loss, and paint damage during removal.

PAINT / COATING AGE	RISK	EXPECTED FAILURE MODE IF IGNORED	REQUIRED ACTION
Less than 7 days	Severe	Paint is not bonded and continues to outgas. Graphic will not develop adequate bond. Bubbling, complete edge lift, and paint failure are likely.	Do not proceed. No exceptions without explicit written approval from the coating manufacturer and the customer.
7–14 days	High	Outgassing and soft paint significantly increase risk. Graphic may appear to adhere initially but lift within days.	Delay when possible. Test panel required. Document cure status and obtain written customer approval before production.
14–28 days	Moderate	Most coatings are approaching full cure. Dark colors and zero/low VOC paints may require additional time.	Test panel recommended. Confirm cure with paint manufacturer if color is dark or VOC level is low.
28+ Days	Low	Recommended minimum. Most coatings are fully cured and stable.	Proceed with standard preparation and test panel protocol.

Note: *Zero and low VOC paints have been successfully tested by GF in controlled lab conditions. Field conditions, dark colors, and high-humidity environments may require additional cure time. It remains the installer's responsibility to test for specific surface conditions before application.*

MATERIAL: WHAT ARE WE INSTALLING?

Material selection must match the surface, environmental exposure, graphic construction, and expected service conditions. RoughMark® products are designed to conform to textured surfaces through the combined action of film flexibility, adhesive wet-out, controlled heat, and applied pressure.

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ROUGHMARK® PRODUCT SELECTION

PRODUCT	CONSTRUCTION	PRIMARY USE	SELECTION NOTES
GF 285 RoughMark®	3.5 mil matte white conformable calendered vinyl	Standard textured wall graphics requiring opacity	Strong value for controlled interior and exterior environments. Best when surface conditions fall within low-to-moderate risk range. Use GF Cast laminates (calendered are not recommended).
GF 287 RoughMark® Clear	3.0 mil matte clear conformable calendered vinyl	Textured applications requiring a clear film	Evaluate surface color, print density, and background visibility before production. Overlap is recommended for panel join method. Vertical application only on brick, block, and concrete.
GF 885AE RoughMark® Cast	2.0 mil gloss white premium cast vinyl with grey HTR adhesive on air egress liner	Higher-conformability and demanding installations, including exterior and freeze/thaw environments	Preferred when maximum conformability, durability, and contour retention are required. Air egress liner aids large-format application. Recommended for high-risk conditions. Pair with GF 813, 831, 840, or 844 laminate.

SURFACE-TO-PRODUCT QUICK REFERENCE

SURFACE / CONDITION	GF 285	GF 287	GF 885AE	NOTES
Sealed / painted masonry, interior	Preferred	Preferred	✓	All products suitable. 885AE preferred for longer-duration or high-value installs.
Sealed / painted masonry, exterior	✓	✓	Preferred	GF 885AE recommended for exterior durability and freeze/thaw resilience.
Unsealed masonry, interior	Caution	Caution	Preferred	Test panel required for all products. GF 885AE preferred.
Unsealed masonry, exterior, no freeze/thaw	Caution	Caution	Preferred	Test panel required. Set customer expectations before production.
Unsealed masonry, exterior, freeze/thaw expected	Not recommended	Not recommended	Caution	GF 885AE only. Test panel and written customer acknowledgment required.
Deep mortar joints, grout channels, or extreme texture	Caution	Caution	Preferred	Heat and foam roller essential. Mosaic technique may apply (see pg.10)

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PRINTING, LAMINATION, AND OUTGASSING

Printed graphics must be fully cured before lamination and installation. Solvent and eco-solvent prints should outgas for a minimum of 24 hours, with 48 hours preferred when ink load is heavy. Incomplete ink curing can contribute to curling, edge lift, adhesive softening, laminate delamination, and reduced field performance. Bubbles appearing shortly after an otherwise clean installation are often a sign of retained ink solvent rather than an adhesive or surface issue.

GF RoughMark® media is certified for use with solvent, eco-solvent, UV curable, and latex digital printers. Contact GF Technical Service at (800) 253-3664 if your printer is not on the profile list. UV curable inks should be confirmed for flexibility with the ink manufacturer before use on conformable films.

METHOD: HOW ARE WE INSTALLING IT?

RoughMark® installation requires a slow, deliberate, and controlled approach. The objective is to heat the film and adhesive sufficiently so the graphic conforms into the texture profile before the film cools. A graphic that looks good immediately after installation but was not properly heated and rolled will often develop edge lift, bridging, or mortar-line release within days or weeks.

SURFACE PREPARATION

All surfaces must be clean, dry, structurally sound, and free from contamination before installation begins.

- Remove dust, loose mortar, dirt, grease, and all other contaminants. Pay particular attention to ceiling transitions and wall corners.
- For interior painted masonry: clean with a lint-free microfiber cloth and a 50/50 isopropyl alcohol/water solution. Do not use household cleaners, soaps, degreasers, or ammonia-based products – these leave residues that inhibit adhesive wet-out.
- For unpainted or exterior masonry: clean with trisodium phosphate (TSP) or an approved masonry cleaner using a stiff brush. Rinse thoroughly and allow to dry a minimum of 24 hours, 48 hours in humid conditions.
- For concrete block with grease or exhaust contamination: power wash, hand wash with detergent cleaner, rinse clean, and allow at least 24 hours to dry.
- Repair loose mortar, cracked joints, and damaged masonry before installation. Graphic installation does not repair or stabilize a damaged substrate.
- Do not apply graphics to effloresing surfaces, which will appear as salt-like residue and indicates active moisture migration. The source must be identified and corrected before installation.

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LAYOUT PLANNING

Layout decisions made before the liner is removed determine where the most vulnerable edges and seams will be.

- Pre-plan all panel positions before removing any liner. Use tape or pencil marks to confirm placement.
- Never position panel edges, seams, or graphic top/bottom edges directly on a mortar joint, grout channel, or deep recess. Top edges should clear mortar joints by a minimum of 2 inches.
- Plan panel layouts so graphic edges land on the high points of the substrate, not in valleys or channels.
- Trim 1/4 inch back from inner or outer wall corners to reduce picking and edge exposure.
- For multi-panel graphics, use a 1/2-inch overlap as the default joint method. Butt joints are more susceptible to gap development on porous substrates.
- Narrower panels are generally easier to control, especially when working from a ladder.

APPLICATION METHOD: HEAT, SPEED, AND PRESSURE

VARIABLE	CORRECT APPROACH	IF TOO LOW / TOO FAST	IF TOO HIGH / TOO AGGRESSIVE
Heat	Warm the film enough to become pliable before pressure is applied. Direct heat at the film and substrate.	Bridging, contour loss, and delayed edge lift. The most common failure source in otherwise well-executed installs.	Film damage, image distortion, foam roller degradation, or substrate damage.
Speed	Move slowly and consistently – approximately 1–2 inches per second. Moving too quickly is the most common installer error.	Insufficient conformity and incomplete adhesive wet-out. Graphic may lift as the film tries to return to memory.	Overworking, stretching, or inconsistent appearance.
Pressure	Use firm, even pressure with a foam roller immediately following the heat source.	Poor contact in valleys, recesses, and mortar lines – origin point of subsequent lifting.	Excess stretching or surface damage, particularly on fragile or aged masonry.
Pass Overlap	Overlap each pass by 50–70% so every section receives heat and roller pressure.	Visible bands, unworked channels, and edge lift in skipped areas.	Excessive dwell time causing stretching or uneven gloss.

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STEP-BY-STEP INSTALLATION

1. **Set the graphic**
   Align the graphic to the wall and remove the liner in controlled sections. Lightly tack to the wall using hand pressure or a clean foam roller with no heat. This establishes position and allows trapped air an escape path. Do not conform the graphic at this stage.
2. **Begin at the top outside corner**
   Once lightly tacked, seal 3 sides to anchor the panel—top, bottom, and the side opposite your rolling direction. Work top to bottom across the graphic.
3. **Apply heat immediately ahead of the roller**
   Hold the heat gun 2–3 inches from the film surface and heat a 1.5–2 inch band until pliable. Immediately follow with the foam roller using firm, consistent pressure. The film cools quickly—pressure must follow the heat closely.
4. **Overlap passes**
   Move the roller down approximately 1.5 inches for each new pass, overlapping the previous pass by 50–70%. Work completely across the graphic width before descending.
5. **Inspect continuously**
   After the first few passes, stop and assess conformity. Blisters or burns indicate speed is too slow; bubbles indicate speed is too fast or more pressure is needed.
6. **Reheat and roll all edges and mortar lines**
   After the graphic is set, return to all edges, overlaps, mortar-line areas, and perimeter corners with additional heat and roller pressure.
7. **Address air bubbles**
   Use an air release tool (not a knife) to puncture bubbles near their edge. Push air outward. Reheat and roll the area to re-conform.
8. **Final inspection**
   Inspect all mortar lines, panel edges, and corners. Reheat any areas showing incomplete conformity.

Note on Heat Gun vs. Propane Torch: A heat gun and foam roller are the recommended tools for all RoughMark® installations. Torch use increases the risk of overheating, inconsistent heat delivery, and substrate damage. Do not direct heat at the foam roller—high heat will degrade the foam and reduce its effectiveness.

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MORTAR JOINT DEPTH AND SEVERE TEXTURE

For most installations, plan panel layout so at least 1-inch of film extends beyond any mortar joint before the graphic edge terminates.

MOSAIC TECHNIQUE

Use when mortar joints are too deep or sharp to conform the film into channels:

- Apply the graphic over the entire area using standard heat-and-roll technique.
- Use a sharp razor in a safety holder to cut the film out of the mortar joints, leaving approximately 1/8 inch around each block face.
- Cut away all tab corners at block intersections.
- Heat and roll all exposed edges to ensure full adhesion around each block perimeter.

EXPANSION JOINTS, MOVEMENT JOINTS, AND PROTRUSIONS

Do not apply graphics over active expansion joints, control joints, or structural movement joints. These joints exist to allow the building to move – thermally, seismically, or due to settling—and a graphic applied across an active joint will be subjected to that movement. The result is film tearing, delamination at the joint line, or complete graphic failure in the area of the joint, often within a short time after installation.

Before layout planning begins, identify the location of all expansion and control joints in the installation area and plan panel edges to avoid them. If a graphic must span an area that contains a joint, the graphic must be cut at the joint after installation to allow independent movement on either side. A cut graphic at a joint will show a visible seam—communicate this to the customer during design planning.

Do not attempt to bridge or seal over an active expansion joint as a substitute for cutting the graphic. Sealants and edge treatments applied over an active joint will fail as the joint moves.

For protrusions such as anchor bolts: apply the graphic using standard technique, leaving a 2-inch unworked margin around the protrusion. Use heat and a gloved hand or foam roller to conform the film in concentric circles working toward the protrusion. Puncture and release any trapped air bubble at the center.

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EDGE SEALING

On exterior installations or any application where graphic edges are exposed to wind, rain, pressure washing, or physical contact, edge sealing provides meaningful protection against edge lifting and extends the effective life of the installation.

Apply a compatible edge sealant—such as a clear, flexible masonry-compatible sealant or an approved graphic edge sealer—along all perimeter edges and any cut edges within the graphic field after installation is complete and edges have been fully reheated and rolled. Allow the sealant to cure fully before the graphic is exposed to water or adverse conditions.

Edge sealing is particularly recommended for:

- Exterior installations on brick, CMU, stucco, or other textured masonry
- Any installation where edges land near mortar joints or surface recesses
- Installations expected to remain in place for an extended duration
- Graphics subject to pressure washing, rain exposure, or high-traffic physical contact

Edge sealing does not substitute for proper installation technique. Edges that were not fully conformed and reheated during installation will not be corrected by a sealant application.

CLEANING AND MAINTENANCE

Once printed, cleaning should be limited to a damp microfiber cloth, paper towel, or non-abrasive sponge with water. Do not soak, scrub, or use abrasive pads, household cleaners, ammonia-based products, or solvent cleaners. Always test your cleaning method in an inconspicuous area first.

REMOVAL

Remove graphics slowly, starting at the top and pulling down at a 180° angle (back against itself). This angle breaks the adhesive bond with the least stress on the paint or substrate. If the film resists peeling, apply heat to soften the adhesive before continuing.

GF RoughMark® products are designed for clean removal from sound, prepared surfaces within the rated removability window. Due to the variability of field conditions—particularly on unsealed masonry or surfaces with unknown coating history—GF cannot guarantee clean removal from all textured surface applications.

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RISK: WHAT COULD GO WRONG?

Risk assessment is the final step before committing to production and installation. Many RoughMark® performance issues are avoidable when installers identify, test, and document risk factors before materials are produced or placed on a wall.

FACTORS THAT AFFECT GRAPHIC PERFORMANCE LIFE

The expected performance life of any RoughMark® installation is not determined by the product alone. The following factors interact to define how long a graphic will perform as intended and how cleanly it will remove at end of life. When multiple negative factors are present simultaneously, the cumulative risk is significantly greater than any single factor in isolation.

FACTOR	HOW IT AFFECTS PERFORMANCE
Surface condition and preparation	A sound, clean, properly prepared surface is the single greatest determinant of long-term performance. Contamination, loose substrate material, or inadequate preparation at the time of installation cannot be corrected after the graphic is applied.
Coating integrity and cure	Graphics applied over under-cured, poorly bonded, or structurally weak paint or coatings will perform only as well as the coating itself. If the coating fails, the graphic fails with it.
Sealed vs. unsealed substrate	Sealed masonry reduces moisture migration, provides a more uniform contact surface, and produces more predictable long-term adhesion. Unsealed porous masonry introduces moisture movement and porosity variation that degrade bond stability over time, particularly under thermal cycling. Note: sealers with water-repellant or hydrophobic characteristics may reduce surface energy and impair adhesion.
Temperature at time of installation	Adhesive wet-out and initial bond development are directly affected by surface and ambient temperature. Installation at or near the minimum application temperature produces a weaker initial bond that is more susceptible to early failure.
Freeze/thaw cycling	Repeated thermal expansion and contraction of a porous substrate stresses the adhesive interface, particularly in mortar lines and deep surface recesses. This is the primary environmental factor in outdoor unsealed masonry failures.

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Moisture exposure and substrate moisture content	Active moisture migration through the substrate will degrade adhesion over time regardless of initial bond quality. Substrate moisture content above 15% at time of installation is a disqualifying condition.
Graphic construction	Film type, adhesive, ink chemistry, laminate selection, and outgas time all contribute to field performance. Mismatches between graphic construction and surface or environmental conditions are a common source of avoidable failure.
Installation technique	Insufficient heat, inadequate roller pressure, moving too quickly, or failing to reheat and roll edges produce results that appear acceptable immediately but degrade within days to weeks.
Duration of installation	All RoughMark® removability ratings are time-limited. Graphics left in place beyond the rated removability window may bond more aggressively to the substrate, increasing the risk of substrate damage on removal.

RISK CLASSIFICATION MATRIX

RISK LEVEL	TYPICAL CONDITIONS	REQUIRED ACTION
Low	Sealed or well-painted masonry, dry substrate, stable temperatures 50°F–95°F, interior or protected exterior.	Proceed using standard RoughMark® installation procedures. Patch test recommended.
Moderate	Unsealed masonry with interior exposure, deeper mortar joints, 40°F–50°F conditions, unknown coating history, or paint cured 14–28 days.	Perform test panel and evaluate at 24 and 72 hours. Document conditions. Proceed with caution after confirmed test results.
High	Exterior exposure with freeze/thaw risk, 32°F–40°F conditions, unsealed porous masonry outdoors, paint cured less than 14 days, or high ambient moisture.	Delay when possible. Test panel and written customer acknowledgment required before production. Use 885AE.
Do Not Install	Below 32°F, frost or cold-soaked surface, active moisture migration, efflorescence, loose mortar, peeling paint, or failing substrate.	Do not proceed until deficiencies are corrected. Installation under these conditions is outside GF's specified application parameters.

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ADHESION TEST PANEL PROTOCOL

A test panel is recommended for all textured wall applications and is required for:

- Unsealed or porous masonry
- Unknown coating history or unverified paint cure
- New construction with recently applied finishes
- Historic or aged masonry of uncertain structural integrity
- Exterior surfaces with freeze/thaw exposure
- High-moisture or high-humidity environments
- Any surface condition rated Moderate or above in the Substrate Suitability Matrix

Apply a minimum 12″ × 12″ test panel using the same graphic construction (film, ink, laminate) and installation method planned for the finished job. Evaluate at the following intervals.

CHECK POINT	WHAT TO LOOK FOR	PASS / FAIL CRITERIA
Immediately	Initial tack and conformity	Film shows consistent contact with surface high points. No immediate lifting at edges or mortar lines.
15–30 minutes	Edge stability	No edge lift. Bond should be increasing from initial tack.
24 hours	Bond development	No edge lift, no mortar-line release, consistent surface contact. Bond should feel secure.
72 hours	Environmental response	All previous criteria still met. If freeze/thaw conditions are expected, evaluate after a thermal cycle.
7 days (recommended)	Long-term stability and removability	No change in adhesion pattern. Test removal: paint remains on the wall, no adhesive residue on the surface.

If the test panel fails at any stage, do not proceed until the surface condition is corrected or a more appropriate material is identified. Document all results with photos and written notes.

COMMON FAILURE MODE REFERENCE

FAILURE MODE	LIKELY CAUSE	PREVENTION / RESPONSE
Mortar-line release / visual separation at channels	Deep mortar joints with insufficient heat and pressure; moisture migration through porous masonry; freeze/thaw cycling on unsealed substrate.	Slow heat-and-roll technique with high overlap. Use 885AE on demanding substrates. Visual separation at recesses on unsealed masonry in freeze/thaw environments is predictable behavior, not product failure.

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Surface bridging (film spans rather than conforms)	Film not adequately heated; speed too fast; insufficient roller pressure; unsuitable product for texture severity.	Increase heat dwell time. Slow application pace. Increase roller pressure. Use 885AE for deep-profile textures. Mosaic technique for extreme mortar depth.
Edge lifting	Contaminated surface; installation below temperature range; graphic edges on mortar joints or recesses; inadequate edge reheating.	Thorough surface cleaning. Install within recommended temperature window. Reheat and roll all edges. Reposition edges away from mortar joints during layout planning.
Paint failure during or after removal	Under-cured paint; poor paint-to-substrate bond; incorrect removal angle; removability window exceeded.	Confirm paint cure before installation. Remove at 180° with heat. Do not exceed rated removability period.
Moisture-induced lifting or bubbling	Active water migration through substrate; installation on wet or damp masonry.	Delay until substrate moisture is below 15%. Do not install over visibly damp surfaces.
Movement-joint tearing	Graphic bridged over active expansion or control joint without cutting.	Cut graphic within the joint after installation. Never leave an uncut graphic bridging an active movement joint.
Post-installation bubbles appearing days after install	Retained ink solvent outgassing after application; under-cured ink.	Extend outgas time after printing (48 hours minimum for heavy solvent ink loads). Confirm ink cure before lamination.

Do Not Proceed When…

GF RoughMark® installation must not proceed under any of the following conditions. Proceeding places the installation outside GF's specified application parameters and transfers responsibility for the outcome to the installer and/or customer.

CONDITION	EXPECTED OUTCOME IF IGNORED
Surface or ambient temperature is below 40°F	Adhesive will not wet out. Bond will not develop. Graphic will lift, often within hours.
Surface has frost, ice, or visible condensation	Moisture barrier between adhesive and substrate prevents any bond. Immediate or near-immediate failure.
Substrate is visibly wet or moisture content exceeds 15%	Active moisture prevents adhesive cure. Bubbling, whitening, and bond failure are expected.

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Efflorescence is present on the surface	Salt migration from behind the substrate is active. Bond cannot be established over a salt-depositing surface.
Paint has not met manufacturer minimum cure time	Outgassing paint will prevent adhesion and may cause bubbling, edge lift, and paint damage on removal.
Mortar, paint, or substrate is peeling, crumbling, or structurally unstable	The graphic will bond to the failing surface material. Removal will take the failing material with it.
Drywall patches or repairs are unprimed or uncured	Unprimed repairs have different surface energy. Bond will be inconsistent.
Household cleaners, silicone residues, or wax are present	These residues prevent adhesive wet-out and cannot be reliably removed with IPA/water.

SUMMARY

Successful RoughMark® applications begin with an honest evaluation of the surface and its environment. They are built on correct product selection for the texture severity and exposure conditions. They depend on a slow, heat-driven, pressure-controlled installation method. And they require that risk be identified, tested, documented, and communicated before production begins.

When conditions fall outside the recommended application window, that does not automatically mean the installation cannot proceed. It means the installer must make an informed decision, the customer must understand and accept the expected outcome, and the work that follows must be performed with full awareness of the elevated risk.

For more helpful informaton, please visit the individual product Technical Data Sheet (TDS) on www.generalformulations.com/technical-data-sheets.

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Pre-Installation Checklist • Addendum A

PURPOSE

This checklist must be completed before production begins on any GF RoughMark® textured wall graphic installation. It documents that the installer and/or specifier evaluated site conditions, identified applicable risk factors, performed required testing, and – where required – obtained customer acknowledgment of disclosed risks. A completed checklist does not guarantee installation success, but it establishes that due diligence was performed in accordance with GF's published application guidelines.

PART 1 – JOB INFORMATION

Job Name / Location	_____	**Date of Evaluation**	_____
Installer / Company	_____	**Customer / End Client**	_____
Product Specified:	☐ GF 285 ☐ GF 287 ☐ GF 885AE	**Graphic Size(s):**	_____

PART 2 – SURFACE EVALUATION (See Guide Section1)

Substrate Type	☐ Brick ☐ CMU ☐ Poured concrete ☐ Stucco ☐ Stone/tile ☐ Painted masonry Other: _____
Surface Condition	☐ Sealed ☐ Unsealed ☐ Clean, dry, structurally sound ☐ No efflorescence / loose mortar / peeling paint Moisture reading: _____% Paint cure days: _____
Texture Assessment	☐ Light ☐ Moderate ☐ Heavy ☐ Extreme / deep mortar joints Mortar depth: _____ Estimated: ☐ Shallow (<1/4″) ☐ Moderate (1/4″–1/2″) ☐ Deep (>1/2″)
Surface Risk Rating	☐ LOW ☐ MODERATE ☐ HIGH ☐ DO NOT PROCEED – stop and correct before continuing

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PART 3 – ENVIRONMENTAL CONDITIONS (See Guide Section 1, Temperature Table)

Temperature at Time of Evaluation	Surface temp: _____°F Ambient temp: _____°F Humidity: _____% ☐ 60°F–95°F LOW ☐ 50°F–60°F MODERATE ☐ 32°F–40°F HIGH ☐ Below 32°F DO NOT PROCEED
Freeze/Thaw Exposure	☐ NOT expected within 72 hours ☐ ARE expected within 72 hours ☐ Installation is exterior and subject to ongoing seasonal freeze/thaw exposure

PART 4 – MATERIAL AND PRINT READINESS

Product Selection	☐ Selected product matches surface condition and exposure ☐ GF 885AE specified for HIGH risk conditions
Print / Outgassing	☐ Ink is fully cured and outgas time has been observed Outgas time: _____ hours Ink type: ☐ Solvent/Eco-Solvent ☐ Latex ☐ UV Curable

PART 5 – TEST PANEL RESULTS

CHECK POINT	DATE / TIME	PASS	FAIL	OBSERVATIONS
Immediately	___ / ___ ___:___	☐	☐	
15–30 minutes	___ / ___ ___:___	☐	☐	
24 hours	___ / ___ ___:___	☐	☐	
72 hours	___ / ___ ___:___	☐	☐	
7 days (recommended)	___ / ___ ___:___	☐	☐	

Overall result: ☐ Pass – proceed ☐ Conditional – see notes ☐ Fail – do not proceed

Notes:

GENERAL FORMULATIONS

PART 6 – RISK DISCLOSURES AND CUSTOMER ACKNOWLEDGMENT

Check all conditions that apply to this installation. For each checked condition, the customer must acknowledge the associated risk before production proceeds.

APPLICABLE RISK DISCLOSURES
☐ Installation is on unsealed exterior masonry exposed to freeze/thaw cycling. Customer has been advised that visual separation at mortar lines and recesses is a predictable behavior under these conditions and does not constitute a product defect.
☐ Installation is occurring at surface temperatures between 32°F and 50°F. Customer has been advised that adhesive wet-out is reduced at these temperatures and that early edge lift is a known risk.
☐ Paint or coating is less than 28 days cured. Customer has been advised of outgassing risk and has approved proceeding. Days since application: _____.
☐ Test panel showed conditional results (see Part 5 notes). Customer has been advised of the specific failure risk and has approved proceeding.
☐ Installation is on unsealed masonry with high porosity. Customer has been advised that mortar-line release and contour loss are elevated risks.
☐ Other elevated risk condition:

CUSTOMER ACKNOWLEDGMENT

By signing below, the customer acknowledges that the risk conditions checked above were disclosed prior to production, that the installation will proceed at the customer's direction, and that General Formulations' liability is limited to product defects within the specified application parameters described in the GF RoughMark® Application Guide.

Customer / Authorized Representative:	Installer / Certifying Representative:
Print Name: _____	Print Name: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

GENERAL FORMULATIONS

General Notes / Site Conditions:

_____

_____

_____

Reference: GF RoughMark® Application Guide, Revised November 2026

Questions: (800) 253-3664 | info@generalformulations.com