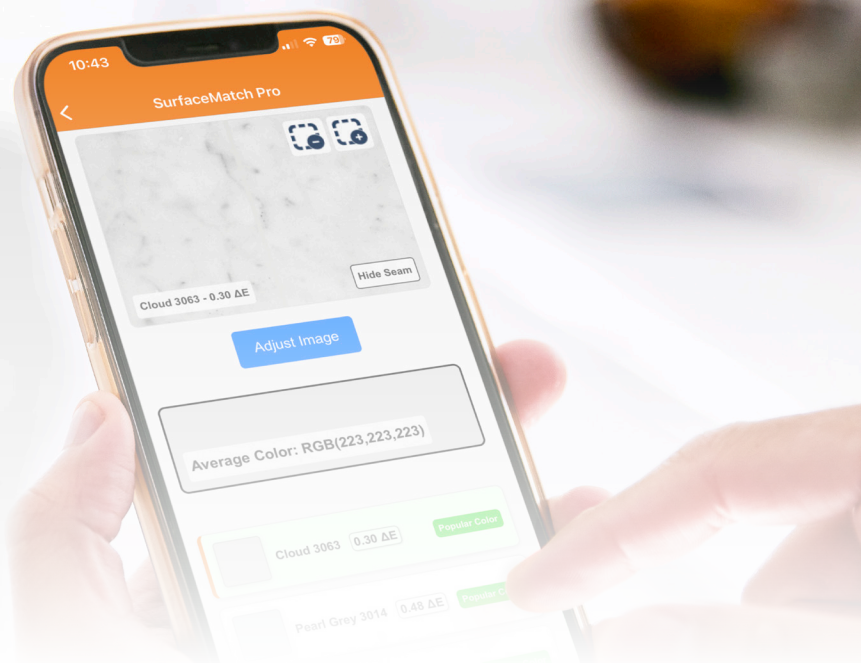
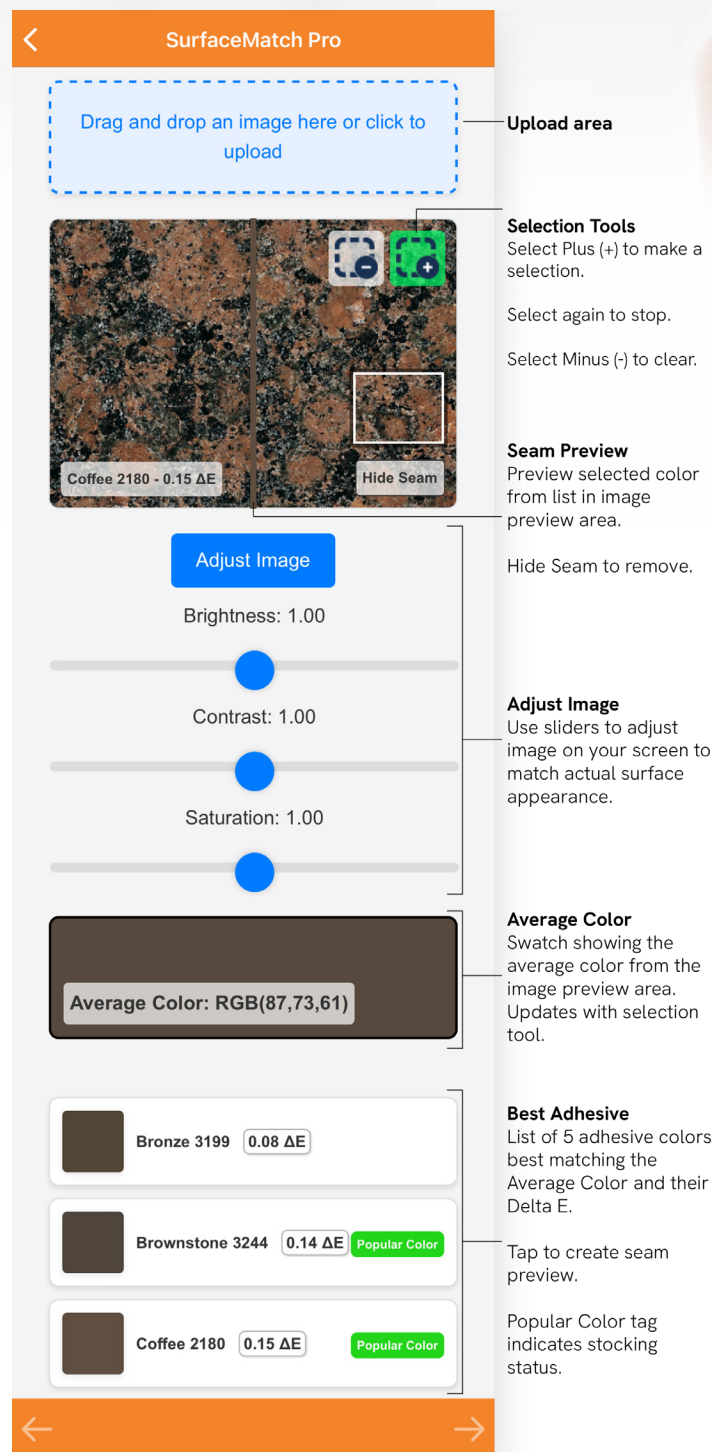


SurfaceMatch Pro™ User Guide



Introduction

SurfaceMatch Pro is an advanced tool integrated within the Integra Adhesives App designed to simplify the color matching process for fabricators and installers. This technology enables users to accurately identify the most suitable adhesive colors for various surfacing materials including quartz, natural stone, and solid surface countertops. By leveraging image analysis and color science, SurfaceMatch Pro eliminates guesswork and helps achieve seamless, professional results.

Key Features

- Upload or capture photos directly within the tool
- Select specific sample areas to analyze color
- Receive suggested color matches from the Integra Adhesives Surface Bonder range
- Compare multiple color recommendations side-by-side
- Fine-tune sample selection for better accuracy
- Adjust image properties (brightness, contrast, saturation) for optimal results
- Preview how different adhesives will appear in the finished installation

Functionality Overview

When utilizing SurfaceMatch Pro, users can either upload an existing image or capture a new photograph of the material requiring adhesive. The application then processes this image to determine the average color composition of the surface. This color data is automatically compared against Integra's extensive library of over 400 adhesive color formulations. The system generates results organized by Delta E values, which indicate the predicted match quality between the surface and available adhesives.

Image Capture Best Practices

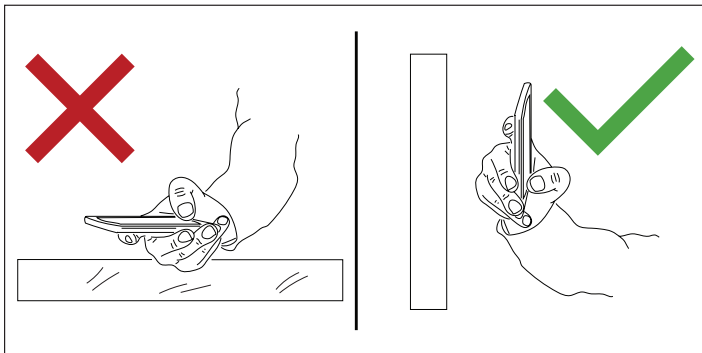
The quality of the image used for analysis significantly impacts the accuracy of color matching recommendations. For the most accurate color matching, follow these best practices when taking a photo:

Lighting Matters:

- Use neutral lighting, such as daylight or bulbs rated 5000K-6500K
- Avoid strong artificial lighting with yellow or blue tints, as these can distort colors
- Ensure even illumination across the entire surface

When photographing surfacing materials, lighting conditions play a crucial role. Daylight-balanced lighting (approximately 5000K color temperature) provides the most accurate color representation and should be used whenever possible.

Environmental factors such as strong overhead lighting, mixed light sources, or colorful nearby objects can all influence how colors appear in your photograph. Whenever possible, capture images in neutral surroundings with consistent, evenly distributed lighting.



Avoid shadow and glare by photographing subject on a vertical

Reducing Glare & Reflections:

- Adjust the camera angle to minimize glare from glossy surfaces
- Avoid having light sources directly behind you; instead, position them at an angle
- If possible, capture images of the countertop positioned perpendicular to the floor

To minimize problematic shadows and reflective glare, position the material vertically so it stands on edge perpendicular to the ground. This orientation allows for more uniform lighting across the surface. In situations where vertical positioning isn't feasible, holding the camera at approximately a 45-degree angle relative to the surface helps reduce unwanted reflections and shadows that could distort color perception.

Camera Positioning & Stability:

- Hold the camera steady to avoid motion blur
- Keep the camera perpendicular to the sample area when capturing the image
- Ensure the photo fills the frame with the surface being matched, minimizing background distractions

Image Adjustment Features

SurfaceMatch Pro includes built-in image enhancement controls that allow for fine-tuning after capture. These adjustments help compensate for any unavoidable lighting issues or camera limitations. The application provides intuitive sliders for modifying:



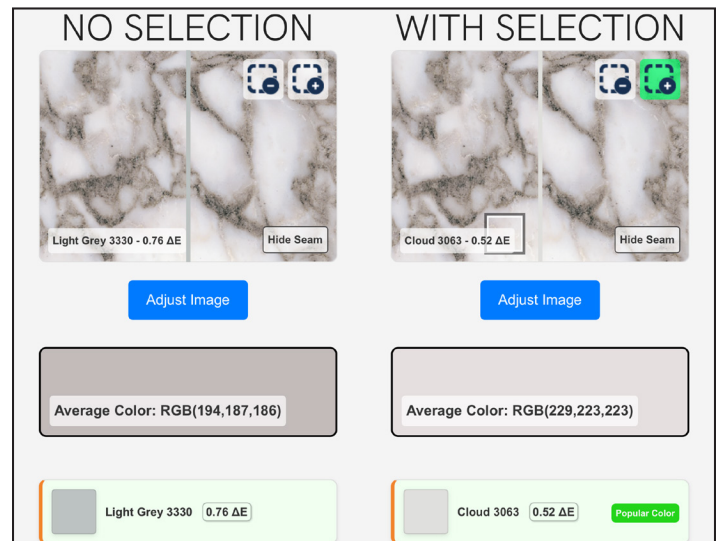
- **Brightness** — adjusts the overall lightness/darkness
- **Contrast** — enhances or reduces the difference between light and dark areas
- **Saturation** — increases or decreases color intensity

When making adjustments, the primary objective is to ensure the digital representation matches the physical material as accurately as possible. Take time to compare the on-screen image with the actual surface under good lighting conditions. Making these careful adjustments before proceeding with color analysis significantly improves the reliability of match recommendations.

Selection and Cropping Tools

One of the most valuable features of SurfaceMatch Pro is its precision selection capability. This tool allows users to isolate specific areas of interest within the material image, particularly useful when working with multi-colored or patterned surfaces.

For example, when matching a material like Bianco Carrara marble, which contains distinctive dark veining throughout a white background, the overall average color would be misleadingly grayish if the entire surface were analyzed. By using the selection tool to highlight only the predominant white areas that require matching, users receive significantly more accurate adhesive recommendations.



It's important to use the select tool to highlight priority colors for seam

This selective approach is equally valuable when working with:

- Heavily veined quartz
- Speckled granite
- Materials with distinct color variations
- Surfaces with multiple zones requiring different adhesive colors

By focusing the analysis on precise areas where seams will be located, the application delivers more relevant results.

Visual Match Preview

After receiving adhesive recommendations, SurfaceMatch Pro allows users to select individual colors to preview how they would appear as seams within the material. This visual simulation helps validate numerical matches with practical application expectations.

The preview feature enables comparison between multiple options before making a final selection. Users should evaluate both the objective Delta E measurements and the subjective visual appearance within their specific material. This comprehensive approach ensures both technical accuracy and aesthetic satisfaction in the finished installation.

Understanding Color Match Results

After analyzing your selected area, SurfaceMatch Pro presents a comprehensive list of potential adhesive matches sorted by Delta E values. Each recommended adhesive displays its corresponding Delta E value relative to your material.

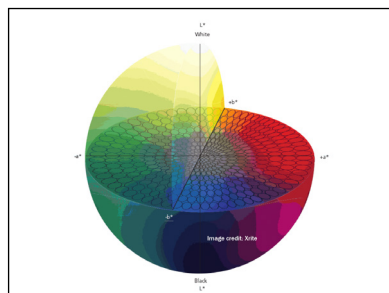
Some recommended adhesives will display a “Popular Color” tag. These designations indicate standard products that are regularly stocked and are readily available, which may help you to find alternative matches when project timelines are considered.

Understanding Color Theory & Delta E

Color matching is influenced by several factors, including lighting, camera settings, and human perception. Delta E is a measurement of color difference—lower values indicate a closer match.

- Delta E values under 1.0 represent extremely close matches that are practically indistinguishable to the human eye
- Values between 1.0-3.0 indicate good matches that would be difficult to distinguish in most applications
- As the values increase, differences in color will become more perceptible

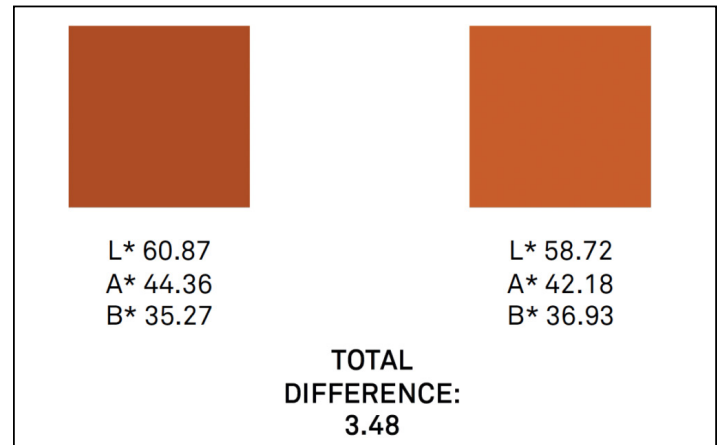
The SurfaceMatch Pro tool calculates Delta E to provide the most accurate recommendations based on the photo provided. This objective measurement helps eliminate subjective guesswork when selecting adhesive colors.



Color space represented in 3 dimensions.
L = Lightness A = Red/Green B = Blue/Yellow

While Delta E provides an objective measure of color similarity, it's important to understand that the lowest numerical value doesn't automatically represent the ideal choice for every application. Several factors beyond pure color matching can influence adhesive selection:

Material properties such as translucency, reflectivity, and texture affect how adhesives appear when applied. Some surfacing materials actually benefit from slightly contrasting seams rather than perfect matches, particularly when working with highly figured or distinctive stones where an invisible seam might appear unnatural.



Delta E Formula: $\Delta E = \sqrt{[(L^*_2 - L^*_1)^2 + (a^*_2 - a^*_1)^2 + (b^*_2 - b^*_1)^2]} / 2$

Practical considerations, particularly product availability (indicated by “Popular Color” tags), should also factor into selection decisions. These “Popular Color” tags highlight standard products that are regularly stocked and readily available. Many fabricators choose to work with these popular colors they already have in stock rather than purchasing new products, as all Integra Surface Bonder colors offer consistent performance and reliability regardless of color.

Troubleshooting Common Issues

If the SurfaceMatch Pro tool isn't providing the expected results, consider the following fixes:

- Colors appear different than expected: Ensure the lighting is neutral and consistent. Avoid harsh shadows or bright reflections.
- Glare or reflections are affecting the match: Adjust the camera angle or reposition the light source.
- The recommended colors don't seem accurate: Try selecting a different sample area or retaking the photo under better lighting conditions.
- Inconsistent results between photos: Keep the camera settings and lighting conditions as consistent as possible when capturing images.

Advanced Tips & Features

- Fine-tune the sample area selection for a more precise match.
- Compare multiple color matches within the Integra Adhesives Surface Bonder range to find the best option.

For improved color accuracy, you can include a neutral gray card in the initial photo to help with white balance. First, take a photo with the gray card visible, use it as a reference when adjusting your image settings, then use the selection tool to isolate only the material area for final analysis.

- For materials with multiple distinct areas, create separate analyses for each section to determine if different adhesives are needed for various parts of the same material.

Conclusion

SurfaceMatch Pro represents a significant advancement in adhesive color matching technology for the surfacing industry. By combining sophisticated color analysis with practical application features, this tool helps professionals achieve superior results with greater efficiency. Understanding how to properly capture images, make appropriate adjustments, and interpret match recommendations ensures you'll maximize the benefits of this innovative solution.

By following these guidelines, users can achieve the best possible results when using the SurfaceMatch Pro tool. Proper lighting, careful camera positioning, and understanding how the tool analyzes color will lead to more accurate and reliable color recommendations.

For additional assistance or technical support with the SurfaceMatch Pro tool, please contact Integra Adhesives customer service or refer to the online support resources within the application.