

SECTION 06 61 17
SOLID SURFACING FABRICATIONS
(ALKEMI-ACRYLIC)

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide recycled surface material as indicated on the Drawings for the following applications:
 - 1. Countertops.
 - 2. Horizontal decorative surfaces.
 - 3. Vertical decorative surfaces.
 - 4. Furniture tabletops.
- B. Related Work:
 - 1. Section 06 10 00 - Rough Carpentry, for substrate materials.
 - 2. Section 06 20 00 - Finish Carpentry, for field-fabricated millwork.
 - 3. Section 06 40 00 - Architectural Woodwork, for shop-fabricated casework.

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions.
- B. Selection Samples: Submit samples of colors and finishes if requested by Designer.
- C. Verification Samples: Submit samples of materials selected specified to verify color and finish.
- D. Shop Drawings: Submit shop drawings prepared by fabricator indicating details of construction, location of seams, and relationship with adjacent construction.
- E. USGBC LEED Submittals: Submit manufacturer's documentation for contribution to LEED credits MR 4.1 and MR 4.2 as applicable.

1.03 QUALITY ASSURANCE

- A. Fabricator: Minimum 2 years experience with solid surfacing fabrications and acceptable to the manufacturer of the recycled surface material.
- B. Installer: Minimum 2 years experience installing solid surfacing fabrications.
- C. Performance: Provide products which meet or exceed the following averaged values when tested to the listed standard.
 - 1. Flame Spread: 60, ASTM E 84 (NFPA Class B, IBC Class B).
 - 2. Smoke Developed: 65, ASTM E 84 (NFPA Class A, IBC Class A).
 - 3. Impact Resistance: 0.55 ft-lb/in., ASTM D 256, Method A.
 - 4. Water Absorption: 0.172 percent, ASTM D 570.
 - 5. Tensile Stress: 2,579 psi, ASTM D 638.
 - 6. Coefficient of Linear Thermal Expansion: 5.30×10^{-5} , ASTM D 696.
 - 7. Flexural Strength: 3,971 psi, ASTM D 790.
 - 8. Specific Gravity: 1.278, ASTM D 792.
 - 9. Barcol Hardness: 51, ASTM D 2583.
 - 10. Heat Deflection: 95.6 degrees C, ASTM D 648.
 - 11. Boiling Water Resistance: No effect, NEMA LD3.
 - 12. High Temperature Resistance: No effect crazing, whitening, cracking, dulling, NEMA LD3.
- D. Certification for Recycled Content: Material contains 91 percent post-industrial scrap by weight as certified by Scientific Certification Systems (SCS), Number MC-2070. Material contains 96 percent post-industrial scrap by volume.
- E. USGBC LEED Credits: Material shall contribute to USGBC LEED-NC version 2.2, MR Credits 4.1 and 4.2 for recycled content.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials and products in unopened factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Acceptable Manufacturer: Renewed Materials, LLC, P.O. Box 55, Cabin John, MD 20818, Tel. 301-320-0042, Fax 301-320-3341, www.renewedmaterials.com

2.02 RECYCLED SURFACE MATERIAL

- A. Recycled Surface Material Fabrications: Provide ALKEMI-Acrylic by Renewed Materials, LLC, composed of clear acrylic-based composite surfacing material containing soft alloy aluminum scrap flake fillers, and with the following characteristics:
1. Thickness: 5/8 inches (16 mm).
 2. Finish: Semi-gloss (factory-finish).
 3. Finish: Matte (additional finishing performed by fabricator).
 4. Finish: High-gloss (additional finishing performed by fabricator).
 5. Finish: As selected by designer.
 6. Color: Clear 500.
 7. Color: Graphite 520.
 8. Color: Crow 580.
 9. Color: Beluga 600.
 10. Color: Coconut 620.
 11. Color: Chips 640.
 12. Color: Marina 700.
 13. Color: Lazuli 720.
 14. Color: Aquarius 730.
 15. Color: Glacier 740.
 16. Color: Sprout 750.
 17. Color: Kelp 780.
 18. Color: Pebble 800.
 19. Color: Oatmeal 810.
 20. Color: Pumice 820.
 21. Color: Cayenne 830.
 22. Color: Magma 840.
 23. Color: Chestnut 850.
 24. Color: Bison 860.
 25. Color: Sonoma 870.
 26. Color: As selected by designer from manufacturer's standard colors.
 27. Surface: Smooth factory finish.
 28. Surface: Satin polish by fabricator.
 29. Surface: High gloss by fabricator.
 30. Edge Treatment: Mitered edges.
 31. Edge Treatment: Layered and built-up edge as indicated.
 32. Edge Treatment: As indicated on the Drawings.
 33. Physical Characteristics:
 - a. Flexural Strength: 3,971 psi per ASTM D790.
 - b. Flexural Modulus: 5.21x1000,000 psi per ASTM D790.
 - c. Heat Distortion Temperature: 204.1 degrees F per ASTM D648.
 - d. Barcol Hardness: 51, 934-1 gauge per ASTM D2583.
 - e. Specific Gravity: 1.278 per ASTM D792.
 - f. Impact, Izod Unnotched: 0.50 ft-lbs/in per ASTM D256.
 - g. Water Absorption, 0.172 percent, 24 hours per ASTM D570.
 34. Horizontal Joint Seaming: Methacrylate adhesive recommended by manufacturer, in clear or matching colors as applicable.
 35. Fabrication:
 - a. Shop-fabricate units to the greatest extent practical.
 - b. Fabricate with tight seams and inconspicuous joints.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation: Install in strict accordance with manufacturer's recommendations, including the following:
1. Horizontal Applications: Install over full substrate of plywood or particleboard supported vertically not more than 30 to 36 inches on center. Use flexible neoprene or silicone adhesive recommended to allow for movement and expansion.
 2. Vertical Applications: Install with Z-clips or similar vertical attachment hardware. Hardware connections shall be made using circular plug inserts into material and methacrylate adhesive.

3. Tabletop Applications for Furniture and Table Surfaces: Install with 100 percent silicone adhesive.
4. Field Seams: Comply with manufacturer's recommendations for flat surface seaming.
5. Edge Sanding and Finishing Procedures: Use dry and wet process, or wet process as recommended by fabricator.
6. Expansion Space: Install with 1/4 inch expansion space on all sides for cutouts, 1/8 inch expansion space for every 10 linear feet.
7. Cleaning: Clean using manufacturer's recommended materials.
8. Protection: Protect materials from damage from subsequent construction operations.

END OF SECTION