SECTION – solid surfacing countertops

1. General
   1. SUMMARY

SPEC NOTE: Edit the following to reflect project conditions. Delete sink requirement if sinks are not part of the scope of work on this Project.

* + 1. This Section includes requirements for supply and installation of solid surface countertops on top of millwork, ready to accept under mount sinks indicated on Mechanical Drawings.
  1. DEFINITION
     1. Solid surface is defined as nonporous, homogeneous material maintaining the same composition throughout the part with a composition of acrylic polymer, aluminum trihydrate filler and pigment.
  2. SUBMITTALS
     1. Provide product information in accordance with Section 01 33 00 – Submittal Procedures.
     2. Action Submittals: Provide the following samples before starting any work:
        1. Product Data: Indicate product description, fabrication information, and compliance with specified performance requirements.
        2. Shop Drawings: Submit shop drawings indicating dimensions, component sizes, fabrication details, attachment provisions and coordination requirements with adjacent work.
        3. Samples for Initial Selection: Submit minimum 100 mm x 100 mm samples. Indicate full colour and pattern variation.
        4. Samples for Verification: Submit minimum 305 mm x 305 mm sample for each type, texture, pattern, and colour of solid polymer.
        5. Maintenance Data: Submit manufacturers care and maintenance data, including care, repair, and cleaning instructions. Include in Project closeout documents.
     3. Informational Submittals: Provide the following submittals during the course of the work:
        1. Coordination Drawings: Submit coordination drawings indicating layout of plumbing and electrical work, steel reinforcing, recessed and built-in items and wall blocking information.
        2. Fire-Test-Response Characteristics: Provide original fire test reports to ensure compliance with the following requirements:
           1. Rate of Burning: ASTM D635Class: CC1 for a nominal thickness of 1.5 mm (0.060 in.)
           2. Self-Ignition Temperature: ASTM D1929: greater than 650 deg F
           3. Density of Smoke: ASTM D2843: Less than 75%
        3. Impact Resistance: Provide Solid Polymer Fabrications that comply with the following requirements:
           1. Impact Strength, Un-notched (23), ASTM D4812: No breakage.
           2. Impact Strength, Notched (23), ASTM D526: 88J/m (1/16)
        4. Allowable Tolerances: Maximum deflection: 2 mm over 305 mm.
     4. Project Closeout Submissions:
        1. Operation and Maintenance Data: Submit manufacturer’s care and maintenance data, including repair and cleaning instructions in accordance with   
           Section 01 33 00 – Submittal Procedures.
        2. Submittals: Operations and Maintenance Data.
  3. QUALITY ASSURANCE
     1. Qualifications: Provide proof of qualifications when requested by Consultant:
        1. Fabricator: Use a fabricator having a minimum of three (3) years experience in fabrication and installation of solid surface materials and have training and certification from the manufacturer for work of similar scope and complexity as that required for the project.
  4. DELIVERY, STORAGE AND HANDLING
     1. Delivery and Acceptance Requirements: Deliver components to project when areas are ready for installation.
     2. Storage and Handling Requirements: Store components indoors in heated conditions similar to the area of installation until ready for installation; handle materials to prevent damage to finished surfaces; provide protective coverings to prevent physical damage or staining following installation until just prior to Substantial Performance for the Project.
  5. SITE CONDITIONS
     1. Environmental Limitations: Do not install Solid Polymer Fabrications until spaces are enclosed and weatherproof, and ambient temperatures and humidity conditions are maintained at the levels recommended by manufacturer.
  6. WARRANTY
     1. Manufacturer Warranty: Provide manufacturer's standard ten (10) year warranty against defects in materials and workmanship; including material and labour to repair or replace defective materials.

1. Products
   1. MATERIALS

SPEC NOTE: Add the SC# from the Product and Finish Schedule below.

* + 1. Solid Surfacing Countertops (SC-#): Cast, nonporous, filled polymer, with through body colour meeting requirements of NEMA LD 3, and having the following nominal properties:
       1. Thickness: ½” (13 mm)
       2. Surface Burning Characteristics: in accordance with CAN/ULC S102 and as follows:
          1. Flame Spread: Maximum 25
          2. Smoke Developed: Maximum 450
       3. Pattern, Colour, Model and Manufacturer: As indicated in Section 09 06 05 Product and Finish Schedule.
  1. ACCESSORIES
     1. Joint Adhesive: Manufacturers recommended adhesive designed to create chemically bonded, inconspicuous, nonporous joints.
     2. Sealant: Mildew resistant, silicone sealant, as specified in Section 07 92 00 – Joint Sealants. Colour: As selected by the Consultant from the manufacturer’s standard product line.
        1. Colour: As selected by the Consultant from the manufacturer's standard product line.

SPEC NOTE: Delete the following paragraph if sinks are not part of this Project.

* + 1. Sink Mounting Hardware: Manufacturers recommended clips, inserts and fasteners for attachment of under mount sinks.
  1. FABRICATION
     1. Fabricate units to maximum size capable of being safely transported and handled to place of final installation in accordance with shop drawing and manufacturers written instructions using a fabricator certified by the manufacturer.
     2. Fabricate and machine shapes to profiles indicated on Drawings; obtain all dimensions affecting fabrication and installation from job site before starting fabrication.

SPEC NOTE: Delete the following paragraph if sinks are not part of this Project.

* + 1. Cut, drill and shape fabrications as required to receive plumbing fittings and services, and built-in accessories [, provide edge treatments, back splashes, [filled contrasting colour inlays] and other details as indicated on Drawings].
    2. Finish edges and surfaces true, level and even with inconspicuous joints between having no voids formed using manufacture’s standard joint adhesive and reinforcing strips.
    3. Make cut outs with 3 mm radius corners to prevent stress cracking.
    4. Fabrication assemblies with tolerances as follows:
       1. Variation in component size: + 3 mm.
       2. Location of openings: + 3 mm from indicated location.
    5. Match numbered components assembled on site; number items to show proper location on site; number on back using material that will not show or telegraph through finished assemblies.
    6. Provide anchorage to receive Work of other Sections scheduled and detailed to be installed.
  1. MISCELLANEOUS MATERIALS
     1. Cleaner: Type recommended by manufacturer.
     2. Fasteners: Use stainless steel fasteners designed specifically for plastics. Self-threading screws are acceptable for permanent installations. Provide threaded metal inserts for applications requiring frequent disassembly such as light fixtures. Use threaded rods and bolts to suit application.

1. Execution
   1. EXAMINATION
      1. Examine substrates, areas, and conditions where installations of solid surface materials occur, with Installer present, for compliance with manufacturer’s requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.
   2. INSTALLATION
      1. Install components plumb and level, in accordance with shop drawings and manufacturers written installation requirements.
      2. Form field joints using manufacturer's recommended adhesive, with joints inconspicuous in finished work.

SPEC NOTE: Delete the following three (3) paragraphs if sinks are not part of this Project.

* + 1. Adhere under mount sinks to countertops using manufacturer's recommended adhesive and mounting hardware.
    2. Install backsplashes and end splashes as indicated on Drawings; adhere to countertops using manufacturer's standard colour matched silicone sealant.
    3. Coordinate plumbing connections and electrical requirements with affected Sections of work.
  1. CLEANING AND PROTECTION
     1. Keep components and hands clean during installation; remove adhesives, sealants and other stains as work progresses; keep components clean until Substantial Performance for the Project.
     2. Repair or replace damaged work that cannot be repaired to match installed work at no additional cost to the Owner.

END OF SECTION