

Part 1 General

1.1 SECTION INCLUDES

- .1 Countertops.
- .2 Sinks.
- .3 Splashes.

1.2 REFERENCES

- .1 American Society for Testing and Materials (ASTM).
 - .1 ASTM D570-98(2018), Standard Test Method for Water Absorption of Plastics.
 - .2 ASTM D696-16, Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer.
 - .3 ASTM D790-17, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - .4 ASTM D2583-13a, Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.
 - .5 ASTM D6110-18, Standard Test Method for Determining the Charpy Impact Resistance of Notched Specimens of Plastics.
- .2 International Organization for Standardization (ISO).
 - .1 ISO 4586-3:2018(en), High-Pressure Decorative Laminates (HPDL).

1.3 SUBMITTALS

- .1 Refer to Section 01 33 00 - Submittal Procedures.
- .2 Product Data: Submit manufacturer's current product literature for each product indicated.
- .3 Samples: Provide one 100 mm x 100 mm colour sample for products indicated.
- .4 Shop Drawings: Include details, and attachments to other work.
 - 1. Submit shop drawings showing seams, termination points, and details of edges.
 - 2. Submit coordination drawings indicating electrical and plumbing work.
- .5 Manufacturer Instructions: Provide manufacturer's written installation instructions.
- .6 Installer Certification: Submit a signed copy of the installer's certificate, acknowledging the employee has been trained and approved by manufacturer.
- .7 Closeout Submittals:
 - 1. Refer to Section 01 78 00 - Closeout Submittals.

1.4 QUALITY ASSURANCE

- .1 Installer Qualifications: Manufacturer approved installer to fabricate and install solid surface products and demonstrate successful experience in installing finished carpentry items similar in type and quality to those required for this project.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Refer to Section 01 60 00 - Common Product Requirements.
- .2 Deliver sheets, fabricated items, materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.
- .3 Store solid surface products and accessories as recommended by manufacturer.

Part 2 Products

2.1 SOLID SURFACE MATERIAL

- .1 Description: Non-porous, homogeneous material maintaining the same composition throughout the product with a composition of polyester or acrylic polymer, aluminum trihydrate filler and pigment.
- .2 Thickness: 12 mm.
- .3 Colour: To be selected by Consultant from standard colour range.
- .4 Sheet Size: Acrylic standard 762 mm x 3658 mm.
- .5 Performance Characteristics based on 12 mm thick solid colour:
 1. Specific Gravity: 28.3 grams/cu. in.
 2. Hardness: 59, when tested in accordance with ASTM D2583.
 3. Flexural strength: 55,158 Kpa, when tested in accordance with ASTM D790.
 4. Tensile Modulus: 12.3×10^5 , when tested in accordance with ASTM D790.
 5. Water Absorption after 24 hours: 0.04 %, when tested in accordance with ASTM D570.
 6. Charpy Impact Foot Pounds per 25.4 mm: 1.5, when tested in accordance with ASTM D6110.
 7. Impact Resistance 0.23 kg: No Fracture at a height >3810 mm.
 8. Linear Thermal Expansion, in/in/°F: 2.1×10^{-5} , when tested in accordance with ASTM D696.
 9. High Temperature Resistance: No Effect.
 10. Boiling Water Resistance: No Effect.
 11. Stain Resistance: No Effect.
 12. Weight per 300 mm square, 12 mm thickness: 2.04 kg.
 13. Recycled Content: Minimum 16%.

2.2 ACCESSORIES

- .1 Silicone Sealant: Mildew-resistant, FDA-compliant, 100% silicone sealant recommended by manufacturer.
- .2 Sink: Integral designed sink.

2.3 FABRICATION

- .1 Finish: smooth polished.
 - .2 Fabricate using 12 mm thick material unless otherwise indicated.
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- .3 Solid surface to be fabricated to field measurements.
- .4 Cut and finish component edges with clean, sharp returns.
- .5 Finished edges shall have a 1.6 mm radius.
- .6 Integral Cove: Provide shop fabricated integrally molded coves at back and ends where against walls or other vertical surfaces, with 10 mm radius between top and splash.
- .7 Integral Sinks: standard sink design and colour, formed integrally with countertops
- .8 Cutouts for sinks and other accessories to be smooth and uniform with no saw marks. The top and bottom of openings to be finished smooth.
- .9 Maintain minimum 6 mm radius for sink cutouts.

Part 3 Execution

3.1 EXAMINATION

- .1 Inspect materials and location of installation for conditions affecting performance of work in accordance with accepted shop drawings.
- .2 Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- .1 Install solid surfaces in accordance with manufacturer's installation guidelines and recommendations.
- .2 Field cut countertop as required for plumbing fixtures and accessories.
- .3 Cure countertops for 24 hours, minimum, before exposure to moisture or pressure.
- .4 Corner joints: Form 3 mm wide joints, sealed with manufacturer's colour-matching silicone sealant.
- .5 Back splashes: Field install with tight, sealed joints.
- .6 Field joints to be hard seamed unless otherwise specified.
- .7 Attach solid surfaces material to leveled supports on frame with dabs of silicone every 450 mm to 610 mm.
- .8 Fasten solid surface material to frame by anchoring screws to supports at all corner blocks. Screw contact with solid surface material not permitted.

3.3 CLEANING AND PROTECTION

- .1 Remove adhesives, sealants and other stains.
 - .2 Protect installed wall cladding from damage. Repair or replace damaged work, to Departmental Representative's satisfaction.
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3.4 SCHEDULES

.1 The following rooms require solid surfacing countertops:

- .1 Men's washroom Room 9242: provide integral trough sink.
- .2 Women's washroom Room 9243: provide integral trough sink.
- .3 Kitchenette 9140: Main counter (undermount stainless steel sink), Island: top and waterfall edge.
- .4 Kitchenette 937: counter (undermount stainless steel sink).
- .5 Equipment Rooms 908, 977, 9107, 9168: counter.
- .6 Rooms 932, 935, 926, 973, 9102: counter.

END OF SECTION