

**SECTION 12 36 00
COUNTERTOPS**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies casework countertops with integral accessories.

1.2 RELATED WORK

- A. DIVISION 22, PLUMBING.
B. Equipment Reference Manual for SECTION 12 36 00, COUNTERTOPS.

1.3 SUBMITTALS

- A. Submit in accordance with SECTION 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Shop Drawings
1. Show dimensions of section and method of assembly.
2. Show details of construction at 1/2 scale.
C. Samples:
1. 150 mm (6 inch) square samples each top.
2. Front edge, back splash, end splash and core with surface material and booking.

1.4 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
B. American Hardboard Association (AHA):
A135.4-95.....Basic Hardboard
C. Composite Panel Association (CPA):
A208.1-09.....Particleboard
D. American Society of Mechanical Engineers (ASME):
A112.18.1-05.....Plumbing Supply Fittings
A112.1.2-04.....Air Gaps in Plumbing System
A112.19.3-08 (R2004).....Stainless Steel Plumbing Fixtures (Designed for Residential Use)
E. American Society for Testing and Materials (ASTM):
A167-99 (R2009).....Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip
A1008-09.....Steel, Sheet, Cold-Rolled, Carbon, Structural, High Strength, Low Alloy
D256-06.....Pendulum Impact Resistance of Plastic
D570-98 (R2005).....Water Absorption of Plastics
D638-08.....Tensile Properties of Plastics

- D785-08.....Rockwell Hardness of Plastics and Electrical Insulating Materials
- D790-07.....Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D4690-99(2005).....Urea-Formaldehyde Resin Adhesives
- G21-96 (R2002).....Determining Resistance of Synthetic Polymeric Materials to Fungi
- F. Federal Specifications (FS):
- A-A-1936.....Adhesive, Contact, Neoprene Rubber
- G. U.S. Department of Commerce, Product Standards (PS):
- PS 1-95.....Construction and Industrial Plywood
- H. National Electrical Manufacturers Association (NEMA):
- LD 3-05.....High Pressure Decorative Laminates
- LD 3.1-95.....Performance, Application, Fabrication, and Installation of High Pressure Decorative Laminates

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Manufacturer: Corian, by DuPont, or approved equal.
- B. Molded Resin:
1. Non-glare epoxy resin or furan resin compounded and cured for minimum physical properties specified:

Flexural strength	70 MPa (10,000 psi)	ASTM D790
Rockwell hardness	105	ASTM D785
Water absorption, 14 hours (weight)	.01%	ASTM D570

2. Material of uniform mixture throughout.
- C. Adhesive
1. As recommended by countertop manufacturer.
 2. For Field Joints:
 - a. Epoxy type, resistant to chemicals as specified for plastic laminate laboratory surfaces.
 - b. Fungi resistant: ASTM G-21, rating of 0.
- D. Fasteners:
1. Use studs, bolts, spaces, threaded rods with nuts or screws suitable for materials being joined with metal splice plates, channels or other supporting shape.

2.2 COUNTERTOPS

- A. Fabricate in largest sections practicable. Joints shall be mitered at change in direction of countertops and over supports.
- B. Fabricate with joints flush on top surface.
- C. Fabricate countertops to overhang front of cabinets and end of assemblies 25 mm (one inch) except where against walls or cabinets.
- D. Join edges in a chemical resistant waterproof cement or epoxy cement, except weld metal tops.
- E. Splash Backs:
 - 1. Not less than 19 mm (3/4 inch) thick.
 - 2. Height 100 mm (4 inches) unless noted otherwise.
 - 3. Fabricate epoxy splash back in maximum lengths practical of the same material.
- F. Drill or cutout for sinks, and penetrations.
 - 1. Accurately cut for size of penetration.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Before installing countertops verify that wall surfaces have been finished as specified and that mechanical and electrical service locations are as required.
- B. Secure countertops to supporting rails of cabinets with as directed by countertop manufacture.
 - 1. Where type, size or spacing of fastenings is not shown or specified, submit shop drawings showing proposed fastenings and method of installation.
 - 2. Use round head bolts or screws.
 - 3. Use epoxy or silicone to fasten the epoxy resin countertops to the cabinets.

3.2 PROTECTION AND CLEANING

- A. Tightly cover and protect against dirt, water, and chemical or mechanical injury.
- B. Clean at completion of work.

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