Commercial Food Service - Recommendations

General Information

Dekton® Ultracompact surface is an extremely durable and low maintenance countertop material. As such it is an exceptional product for use in a food service application. However, due to the conditions that are likely to be encountered, the design requires specific structural knowledge, expertise, and attention to technical details (Technical Manual, PDF file, available at www.dekton.com). Additionally, the fabrication and especially the installation require specialized equipment, experienced personnel knowledgeable in this specialized application (Approved Tools, PDF file, available at www.dekton.com).

I. DESIGN CONCERNS

This information contained within this memorandum is *ONLY* to be considered as a recommendation or guideline for the design of food service countertops. As a manufacturer of products, we do not approve, endorse, or assume any liability for the design or structural calculations selected.

II. FABRICATION AND FIELD CONCERNS

Dekton® is an extremely hard surfacing material composed primarily of minerals sintered without any resin. As such, fabrication and field operations will require specialized tools, experience, knowledge and training. Although silica is present in less than 11%, extreme care and caution should be taken to minimize creation and breathing of particulates generated in the cutting, sawing, routing, drilling, sanding and polishing of this product. The use of 'wet' equipment and breathing masked are recommended. If at all possible, field, fabrication, adjustments or repairs should be performed outside.

III. GENERAL CONSIDERATIONS

Although Dekton® is very durable and structurally sound this surfacing material, it should not be considered as a structural component in food service applications. Adequate structural support should be designed and implemented to carry the weight of the Dekton® any additional exterior loads.

A. Dekton's® Flexural Strength is considered 60 N/mm2 as determined by independent testing laboratories using the standards of EN ISO 10545-4 testing requirements.

B. Provide adequate support directly underneath any external load and do not use Dekton® to transfer bending and/or shear loads from external equipment or apparatus to supporting structures.

C. All external loads must be limited to comprehensive loads. Bending and/or shear loads should not be introduced.

D. All inside corners for cut-outs must be radiused with a minimum of 5mm. Square corners are always to be avoided and eliminated.

E. If heated bins or other heating equipment is to be used additional precautions and procedures need to be heeded and performed. Steps should be taken to insulate Dekton® from heated food service equipment. A *minimum* of one layer of Nomex ® (or equal) insulating tape with a minimum thickness of 2.5mm/layer and a minimum weight of 300 gr/m^2/layer is recommended.

F. The design must provide for clearance of 2mm between the Dekton® and any adjacent walls, cabinets or other constraint. For a drop edge also leave at least 2mm behind the dropped edge and the casework.

G. The design must accommodate expansion and contraction to minimize the buildup of mechanical and thermal stress. Dekton coefficient of thermal expansion is 6.5 x 10^{-6} $°C^{-1}$, as determined by independent testing laboratories using the standards of EN ISO 10545-8.

IV. AMBIENT TEMPERATURE CUTOUTS

A. Cutouts must be a minimum of 50mm. apart.

B. Ease top and bottom edges.

C. Smooth or hone around entire interior of cutout and remove/eliminate any and all cut lines and chips that might exist.

D. Install support for cutout within 50mm. of all edges of cutout.

E. Provide a minimum gap or 2mm. between appliance and edge of cutout to allow for expansion/contraction of the appliance/tray or service equipment.

V. HOT OR COLD CUTOUTS

A. Cutouts must be a minimum of 50mm. apart.

B. Ease top and bottom edges.

C. Smooth or hone around entire interior of cutout and remove/eliminate any and all cut lines and chips that might exist.

D. Install support for cutout within 50mm. of all edges of cutout.

E. The design of countertops that will include service trays or equipment that will exceed ambient temperatures, either hot or cold, must include space for insulation and adequate support for the equipment.

F. Install supports for the cutout within 50mm. of the edge of the cutout.

G. Provide a minimum gap of 2mm. between appliance and service equipment and the edge of the cutout to allow for the expansion/contraction of that bin or appliance.

H. Minimize heat transfer (hot or cold) by installing insulation. A *minimum* of one layer of Nomex® (or equal) insulating tape with a minimum thickness of 2.5mm/layer and a minimum weight of 300 gr./m^2/layer is recommended.

I. Avoid direct Dekton® to hot water/steam contact. Never under mount hot wells in a way which will cause Dekton® to become part of the steam tray.

J. Ideally, hot wells and cold wells should be separated by a minimum of 30cm, with a flexible expansion joint between the wells. In a typical design detail 2mm.

gap between sheets/slabs of Dekton should be filled with silicone sealant. While the use of this type of flexible expansion joint is preferred and highly recommended, it is acceptable to omit this feature or detail if Dekton is insulated from both the hot and cold temperature equipment. One layer or more of Nomex® (or equal) insulating tape with a minimum thickness of 2.5mm/layer and a minimum weight of 300 gr/m^2/layer is recommended.

NOTE: The insulating tape must be held in place using a minimum of 4ml. aluminum conducting tape. Do not fold this tape onto the Dekton® surface. DO NOT allow the foil tape to create a heat transfer path directly to the Dekton. Attach the tape onto the support structure or membranes for the heat/cold tray/bins or appliances.

PLEASE SEE APPENDIX FOR DRAWINGS OF RECOMMENDED INSULATATIONS

VI. SUPPORTING SEAMS

Dekton® ultracompact surfacing material seams require structural support. The structural support needs to be flush with the supporting substructure. Typical support materials and members include cabinetry, wood, plywood and steel/metal structural shapes.

PLEASE SEE APPENDIX FOR DRAWINGS OF RECOMMENDED INSULATATIONS

VII. MOUNTING ANCILLARY EQUIPMENT AND APPARATUS

Mount ancillary equipment and apparatus such as sneeze guards, heat lamp, and divider support structures directly to the sub frame. DO NOT attach these items directly to the Dekton®. Drill through the Dekton® top using the appropriate approved diamond tools (preferably water cooled) and secure the support structure and/or member to the framework below. Provide adequate radial clearance of 2mm. minimum between the Dekton® top and columns or brackets penetrating the top.

VIII. HEAT LAMP LOCATION

Heat lamp can generate extremely high surface temperatures. Most health authorities require food to be kept at a temperature of at least 60° C. The distance between the lamp(s) and the Dekton® will depend on various lamp characteristics such as design and wattage. The distance for mounting the lamp(s) should be determined in order to achieve the food temperature requirements and *minimize* spot creation on the Dekton®.

IX. HOT PADS

Since hot trays used for delivery of food to the service line are sometimes placed on the surfaces near the food wells, provisions should be taken to install or have available some form of hot pad (trivet) to isolate the heated tray from the Dekton® surface.

APPENDIX

FIGURE I

Hot/Cold Cutout Example

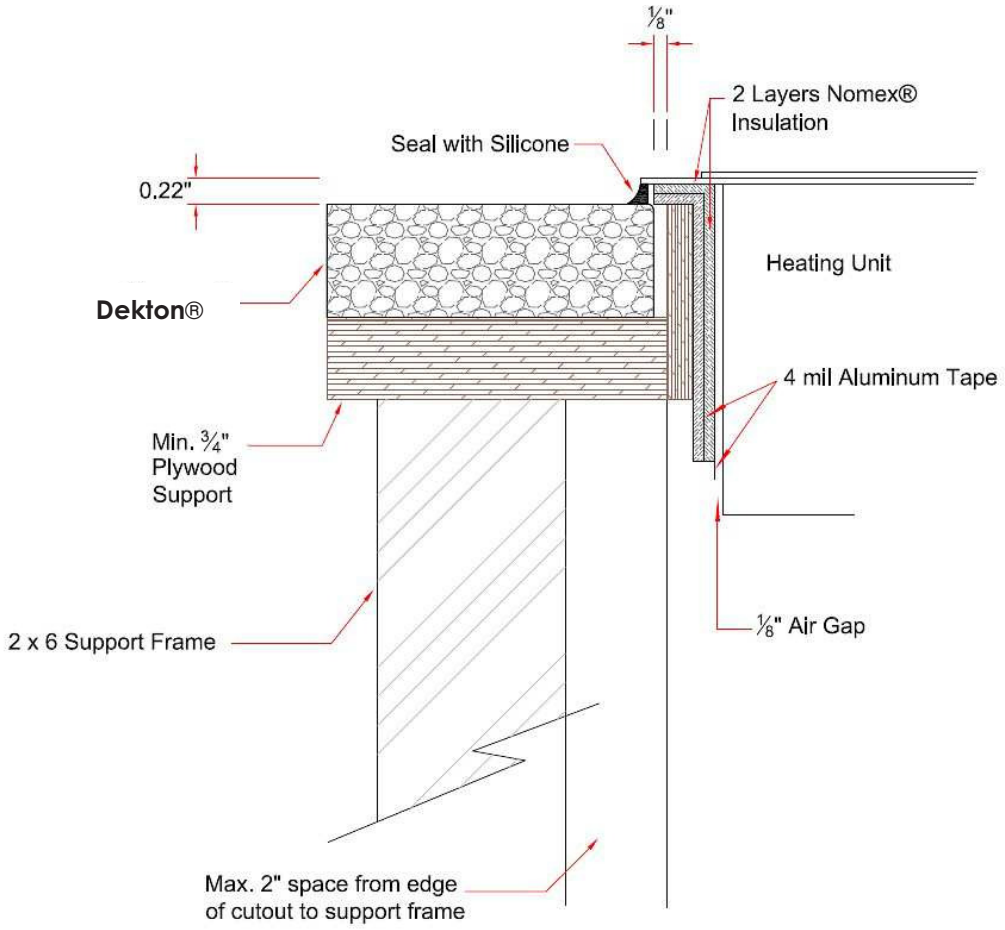


FIGURE II

Hot/Cold Cutout Alternative Example

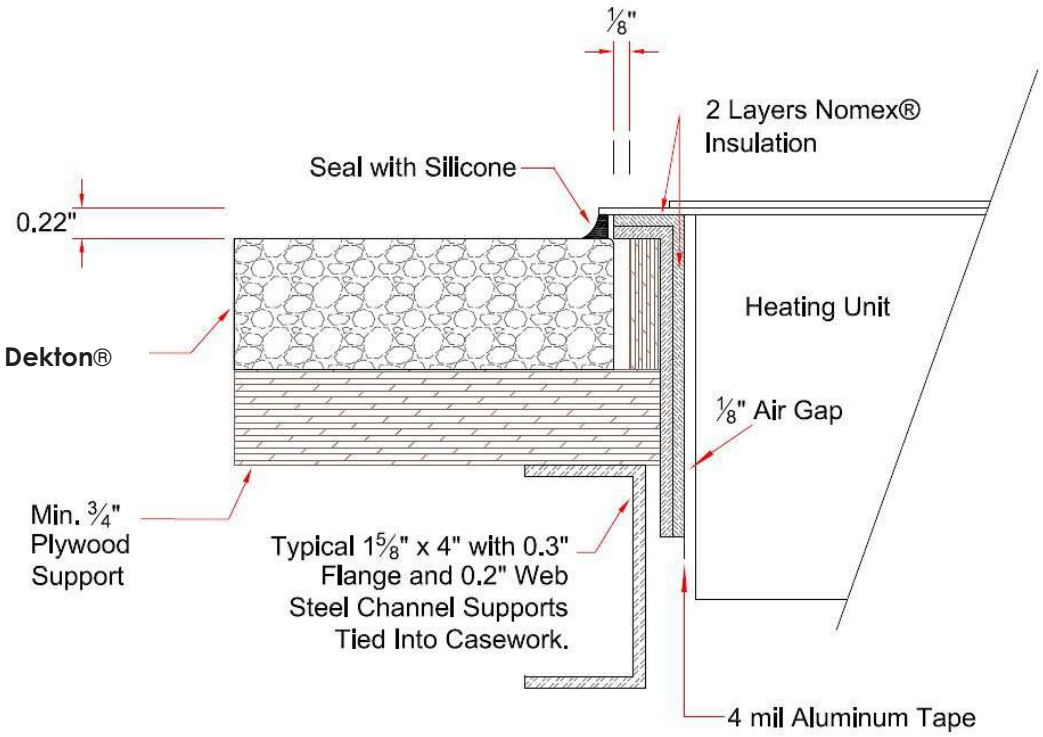


FIGURE III

Seam Support Example

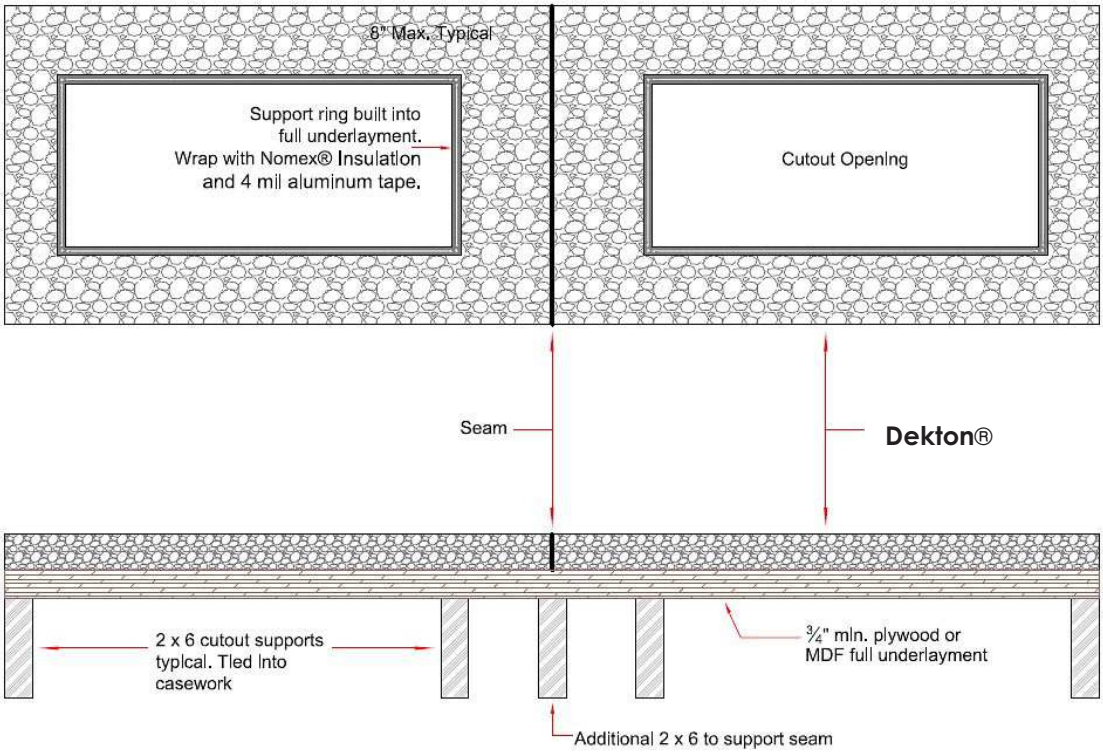
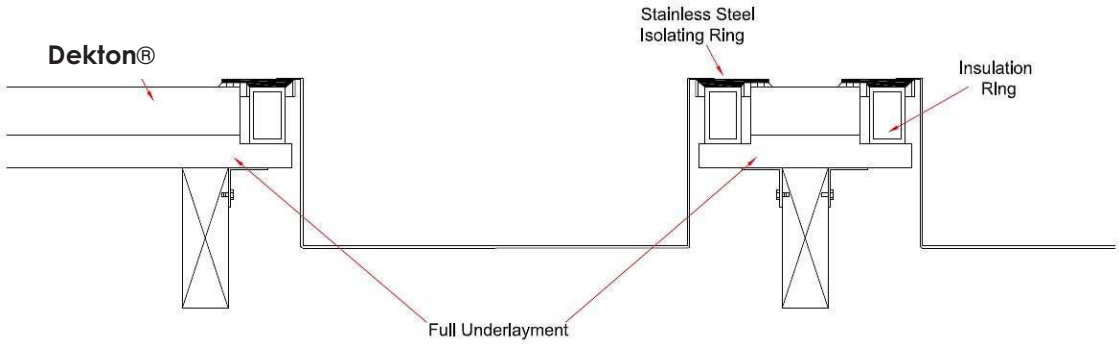


FIGURE IV

Cross-sectional Drawing of Installed Hot Wells


Dekton®
Stainless Steel
Isolating Ring
Insulation
RIng
Full Underlayment