

## Vanity Top Beveled Edges ◀ ▶ My Opinion

*Have a technical question? Check MIA's Dimension Stone Design Manual VII first. If you can't find the answer there, contact MIA's Technical Director, Chuck Muehlbauer, at [technical@marble-institute.com](mailto:technical@marble-institute.com). This FREE service is for MIA members only! (Non-member charge: \$85/hour) As a courtesy to other members, please limit phone conversations to ten minutes per call. All opinions and advice provided by Chuck Muehlbauer or anyone else from MIA are provided as general information only. MIA assumes no responsibility and shall not be liable for any damages resulting from your use of this information. Any information provided by the MIA are the exclusive property of MIA and shall not be disseminated, republished, or reproduced in any manner without the prior written consent of MIA.*

**Q.** We have a proposed installation of imported limestone. The vendor has assured us the material is exterior quality, and provided documentation of usage as sills and coping in freezing climates similar to ours. Can we assume it will work for exterior paving?

**A.** No, that would be a risky assumption. Freeze/thaw degradation is related to saturation level. The stone really doesn't know when the temperature crosses 32° F, because it's already a solid. It's the water in the stone's pores that changes forms when the temperature dips below 32°F. A perfectly dry stone can go through unlimited freeze/thaw cycles without damage, but a waterlogged stone has to deal with the expansion of the water when it freezes, and therein lies the damage potential. Cladding, sills, and coping are generally rapidly drained and well ventilated, so the probability to freeze in a highly saturated state is low. Paving is much more likely to be in a saturated state when the temperature dips below freezing, and there are numerous stones that perform well as cladding, sills, coping, etc., but have a history of performance problems as paving. I would encourage you to research any known pavement applications of the product. Assuming exemplar pavement applications exist, the design of the system is also critical. The design needs to incorporate a secondary subsurface water evacuation system, aggressive (≥2%) surface drainage, limited lateral distance between drains, and proper maintenance of the drains after construction.

**Q.** I have a question about stone manufacturing standards – we just had vanity tops installed in 198 high-end hotel guest bathrooms, and the edges have no bevels on them. I thought a beveled edge was an industry standard.

**A.** The application of a "bevel", or more correctly called a "chamfer", is common in the industry, but there is no document that makes it mandatory. In most parts of the country it is simply referred to as an "eased" edge, although there are some regions where the term "eased" edge refers to a slight radius as opposed to a slight chamfer. Fabricators generally prefer to ease edges, as it provides some forgiveness to chips that may have occurred in fabrication, and also reduces the vulnerability of chipping during handling and installation. Yet there is no standard mandating them to ease the edge.

**Q.** We are bidding to fabricate and install a small project using Santa Cecilia granite from Brazil. The general contractor insists on purchasing the slabs themselves. We are concerned that the purchased slabs will have resin on them. Is this a problem?

**A.** I would agree that slabs of that material sourced in the United States are almost guaranteed to have been resined. There are a variety of resins used, and no disclosure is typically made as to what particular type of resin has been applied. The MIA's recom-

mendation is that no resined material is to be used in exterior application, due to concern of discoloration or even dislodging of the resin as a result of UV exposure. Your concern is valid, and I would advise the general contractor of the potential problem. At a minimum, you should make sure that the weathering performance and face condition of the material are excluded from your warranty.

**Q.** We seek your advice on the factor of safety to be considered as per ASTM norms on flexural strength of the granite to be used on external cladding for building height up to 25 meters.

**A.** For granite, ASTM C 1242 suggests 3.0:1. This is assuming that the coefficient of variation of the test results does not exceed 20%. There is additional discussion in the ASTM C 1242 regarding conditions that may necessitate the use of higher factors of safety. I would suggest obtaining a copy of the full document for your review and guidance.