WINERY OSOYOOS, BC

July, 2004
SUPERBASE (HS) ® and SUNSHIELD ® with a top coat of ENAMOGRIP ®.

The metal roof of a two year old winery building has been leaking during rainfall. The interior side is finished off with maple paneling in the sampling area. Access here is not possible, making it difficult to see where the water is getting in. Water drips in spots at the metal beams, where the base of the metal roof "barrel" meets the flat tar & gravel over Q-decking. It has been determined that the flat roof is sound, with no apparent defects or cause for leaking.

Some bolts were loose and at least one was missing altogether

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Corrosion evident on the exposed panel edges

Potential problem areas identified are: loose or missing nuts/bolts, defective washers, seams, flashings, ponding water and heat expansion. Polyurethane caulking on bolt heads and bottom base plate seams (below) did not resolve the issue, although caulking did not cover all bolt heads or seams. Temperatures in the Osoyoos area can climb to 40°C or more. This places considerable heat load on metal roofs, especially where the substrate has been insulated on the underside and closed in, offering little to no ventilation. During the application below, it was impossible for one to hold their hand onto the metal substrate, with ambient temperatures reaching 40.5°C.

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EAGLE recommended a unique monolithic coating system, which would address all of the potential problem areas:

- Caulking of all of the seams and bolts with SUPERTHERM ® to ensure a waterproof substrate that is resistant to UV and ponding water.

- A base coat SUNSHIELD ® would be applied over the total surface area to insulate and prevent further heat expansion of the substrate. Added benefits would include a flexible coating, which provides additional waterproofing over the complete substrate

- A top coat of ENAMOGRIP ® tinted as per customer who wished to maintain the aluminum appearance as much as possible. Added benefits include an outstanding low maintenance protective coating, which provides semi-gloss retention, color retention, chalk resistance, water resistance and UV resistance. The corrosion on the panel edges will no longer be able to spread once it is permanently sealed under this coating system.

Preparation of the substrate involved water blasting the roof clean of all loose debris and dirt (common in this wind blown area) Note the water ponding at the base (lower right photo). This flashing does not slope away from the seams. These areas had to be hand dried to ensure the substrate was completely dried to accept the coating system.

SUPERBASE (HS) ® applied on all bolts and seams at 30SqFt p/gal. The bottom base flashing was applied liberally with added material to accommodate the anticipated ponding water.

SUNSHIELD ® applied at 16mil WFT to dry down to 7.38mil DFT

Top Coat - ENAMOGRIP ®