

April 17th, 2026

Dear Valued Customer,

- › We are fast approaching the increased humidity and warmer weather that has historically increased the risk of aluminum end unit stress corrosion failure on carbonated beverages. Stress corrosion remains one of the greatest risks for financial loss to the beverage packaging industry.
- › Outside-in stress corrosion of ends occurs when moisture is not removed and attacks the relatively unprotected area of the end score during storage. The use of plastic shrink-wrap tends to retain moisture and, in combination with high storage temperature and high carbonation, can lead to end score panel failure through the stress corrosion mechanism. The use of a perforated shrink wrap is recommended to aid with evaporation post shrink wrap and when paper trays are not used.
- › Outside-in stress corrosion has not been documented to occur with dry filled cans. Hence, ends should be dried to remove all moisture. It is imperative that all beverage packers review their can drying practices, particularly when shrink-wrap secondary packaging is used, to ensure dryness. Adequate dryness is generally defined as a target average of < 3mg residual moisture per end unit. Ends should be rinsed with treated (preferably de-mineralized) water to remove track lubricant and product contamination before thoroughly drying.
- › The rinse water should be controlled to levels of sulfate and nitrate < 15ppm and for chloride < 10ppm.
- › Since the transition from Winter to Spring/Summer and humid weather has shown increased risk, we recommend reviewing can drying practices and implementing corrective measures, if required. Good warehousing practices are also important. Reduced heating from the transition to warmer weather allows trapped moisture within the center of filled good pallets to exist longer and increases the risk for stress corrosion.
- › Dew point charts are available to indicate the minimum product temperature required to prevent condensation for a given ambient temperature and relative humidity. Please reach out to your Beverage CTS for guidance in line audit evaluation and recommendations.
- › Drying of the can bodies to prevent carry over of water into the final package is strongly recommended.

Note:

- › ***CROWN strongly recommends to all fillers to use the industry (MPE, ISBT) guidelines to minimize the risk of Stress Corrosion.***
- › ***CROWN considers that Can and End drying is a critical element of the beverage filling operation.***
- › ***The responsibility for adequate Can and End drying rests with the filler.***
- › ***Please be advised that CROWN does not warrant aluminum beverage ends against outside-in stress corrosion and will not honor claims resulting from any associated occurrence.***
- › ***For further help and guidance please contact your local Beverage CTS representative.***

Stress Corrosion Does Not Occur on DRY ENDS..... Keep It Dry!