Sealant Compatibility with Cardinal LoĒ™ Coatings

Certain sealants, as well as other components used in the fabrication of insulating glass (IG) units, have the potential to release semi-volatile compounds that can attack the silver layer(s) found in most Cardinal LoĒ coatings. This chemical attack can cause corrosion or spotting of the silver layers, even though the silver layers are protected with chemical and abrasion resistant coatings. Scratches and pinholes caused by normal handling, shipping, improper storage, and glass washing can reduce the effectiveness of the protective coatings which may result in LoĒ coating corrosion.

Cardinal has successfully been producing LoĒ IG units with a butyl primary seal, bent corners, and a silicone secondary seal without showing any evidence of LoĒ corrosion due to sealant incompatibility. However, if argon fill holes are in the spacer, unsealed corner keys are used without butyl coverage, or voids are present in the primary seal, there is the potential for having secondary sealant volatiles enter the airspace. Single seal systems, which release sulfur or chlorine, have been known to create LoĒ spotting or corrosion failures within sealed systems.

Cardinal will assist our coated glass customers with information concerning material compatibility, handling, washing, storage, and IG unit construction to help avoid sealant incompatibility. Material compatibility is the responsibility of the window manufacturer and is not covered by Cardinal's limited warranty.