

Sealant Compatibility with Cardinal LoE™ Coatings

Certain sealants, as well as other components used in the fabrication of insulating glass units (IGU), have the potential to release semi-volatile compounds that can attack the silver layer(s) found in most Cardinal LoE 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 LoE coating corrosion.

Cardinal has successfully been producing LoE IGU's with a butyl primary seal, bent corners, and a silicone secondary seal without showing any evidence of LoE 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 LoE spotting or corrosion failures within sealed systems.

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

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