

Heat Treatment Guidelines of Cardinal's LoE™ Products

The attached heat treatment recommendations are to be used as guidelines, and only apply for thermal stress considerations. These guidelines do not take into account any requirements for wind load, safety glazing, or glass sizes that may be larger than Cardinal's handling capabilities for the thickness in question. These guidelines also consider the glass edges to be clean cut without edge damage and that typical glazing conditions exist. These guidelines do not consider shadow patterns on the glass. Shadow patterns on glass can produce a high differential temperature in the glass, resulting in an increased probability of thermal breakage if annealed glass is used.

If heat-absorbing products like LoE²-240™ are used on the third surface with clear or tinted glass substrates as the outdoor glass lite, the solar absorption will become very high and the indoor glass temperatures will also be high resulting in the possible requirement for heat treating the indoor and/or outdoor glass lites. Please see the guidelines attached for heat treatment recommendations of the above glass products to reduce the potential of breakage from thermal stress.

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Heat Treatment Guidelines for Cardinal IG LoE™ Products

	3 mm, 4 mm, and 5 mm Glass Thickness									
	LoE (#2) Outdoor Lite	Clear Indoor Lite	Clear Outdoor Lite	LoE (#3) Indoor Lite	Green Tint Outdoor Lite	LoE (#3) Indoor Lite	Gray Tint Outdoor Lite	LoE (#3) Indoor Lite	Bronze Tint Outdoor Lite	LoE (#3) Indoor Lite
LoE-179™	A	A	A	A	A	A	A	A	A	A
LoE ² -272™	A	A	A	A	A	A	A	A	A	A
LoE ² -270™	A	A	A	A	A	A	A	A	A	A
LoE ³ -366™	A	A	A	H/T	A	A	H/T (5 mm)	A	A	A
LoE ² -240™	A	A	A	H/T	A	H/T	A	H/T	A	H/T

	6 mm Glass Thickness									
	LoE (#2) Outdoor Lite	Clear Indoor Lite	Clear Outdoor Lite	LoE (#3) Indoor Lite	Green Tint Outdoor Lite	LoE (#3) Indoor Lite	Gray Tint Outdoor Lite	LoE (#3) Indoor Lite	Bronze Tint Outdoor Lite	LoE (#3) Indoor Lite
LoE-179™	A	A	A	A	H/T	A	H/T	A	H/T	A
LoE ² -272™	A	A	A	A	H/T	A	H/T	A	H/T	A
LoE ² -270™	A	A	A	A	H/T	A	H/T	A	H/T	A
LoE ³ -366™	A	A	A	H/T	H/T	A	H/T	A	H/T	A
LoE ² -240™	A	A	A	H/T	H/T	H/T	H/T	H/T	H/T	H/T

NOTES:
(1) A = Annealed Glass
(2) H/T = Heat-Strengthened or Tempered Glass