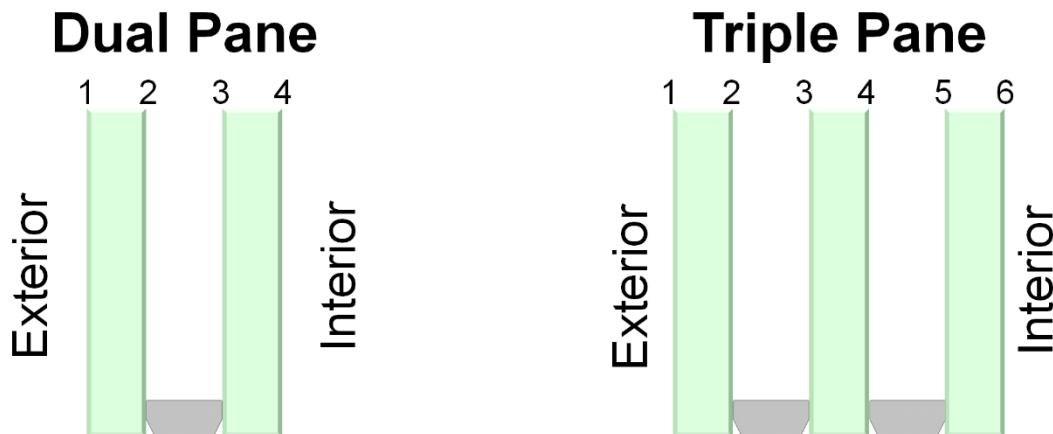


Suggested IGU configurations with LoE

Cardinal LoE coatings are a critical component in insulating glass units (IGU) used in windows. These coatings are applied to the glass surface to reduce heat transfer and improve energy efficiency in buildings. The placement of these LoE coatings can affect the performance, appearance, thermal breakage risk, and could possibly affect the warranty.

Ultimately, the choice of which LoE coating(s) is used and its placement should align with the specific energy efficiency goals and climate conditions to optimize the IGU's performance for where it will be installed.

Glass surface numbers for a Dual and Triple Pane configuration:



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Suggested IGU Configurations with Cardinal LoE products

(#) after the LoE designates the coating surface, see diagram on previous page

| Dual Pane IGU | Outboard | | Inboard |
|---------------------------|--|---------------------------|---------------------------|
| | | | |
| | 1 LoE coating Clear Glass | Clear | LoE-180 (3) |
| | | Clear | LoE-180 ESC (3) |
| | | LoE ² -272 (2) | Clear |
| | | LoE ² -270 (2) | Clear |
| | | LoE ³ -366 (2) | Clear |
| | | LoE ² -240 (2) | Clear |
| | | LoE ³ -340 (2) | Clear |
| | | LoE-452+ (2) | Clear |
| | 1 LoE coating Tinted Glass ⁺ | Tint* | LoE-180 (3) |
| | | Tint* | LoE-180 ESC (3) |
| | | Tint* | LoE ² -272 (3) |
| | | Tint* | LoE ² -270 (3) |
| | | Tint* | LoE ³ -366 (3) |
| | 2 LoE coatings Clear Glass | LoE-180 (2) | LoE-i89 (4) |
| | | LoE-180 ESC (2) | LoE-i89 (4) |
| | | LoE ² -272 (2) | LoE-i89 (4) |
| | | LoE ² -270 (2) | LoE-i89 (4) |
| | | LoE ³ -366 (2) | LoE-i89 (4) |
| | | LoE ² -240 (2) | LoE-i89 (4) |
| LoE ³ -340 (2) | | LoE-i89 (4) | |
| LoE-452+ (2) | | LoE-i89 (4) | |

| Triple Pane IGU | Outboard | | Middle | Inboard |
|---------------------------|----------------|---------------------------|------------------|-----------------|
| | | | | |
| | 2 LoE coatings | LoE-180 (2) | Clear | LoE-180 (5) |
| | | LoE-180 ESC (2) | Clear | LoE-180 ESC (5) |
| | | LoE ² -272 (2) | Clear | LoE-180 (5) |
| | | LoE ² -270 (2) | Clear | LoE-180 (5) |
| | | LoE ³ -366 (2) | Clear | LoE-180 (5) |
| | | LoE ² -240 (2) | Clear | LoE-180 (5) |
| | | LoE ³ -340 (2) | Clear | LoE-180 (5) |
| | | LoE-452+ (2) | Clear | LoE-180 (5) |
| | 3 LoE coatings | LoE-180 (2) | LoE-180 (4)* | LoE-i89 (6) |
| | | LoE-180 ESC (2) | LoE-180 ESC (4)* | LoE-i89 (6) |
| | | LoE ² -272 (2) | LoE-180 (4) | LoE-i89 (6) |
| | | LoE ² -270 (2) | LoE-180 (4) | LoE-i89 (6) |
| | | LoE ³ -366 (2) | LoE-180 (4) | LoE-i89 (6) |
| | | LoE ² -240 (2) | LoE-180 (4) | LoE-i89 (6) |
| LoE ³ -340 (2) | | LoE-180 (4) | LoE-i89 (6) | |
| LoE-452+ (2) | | LoE-180 (4) | LoE-i89 (6) | |

*Glass has a high probability of glass breakage, see Cardinal TSB IG07 – Thermal Breakage Prediction for more information

*Low visible transmission products inboard will yield reduced performance with high glass temperatures and thermal risk