



LoE-180ESC

Cold Protection and Code Compliance for Canada

In Canada's frigid weather, Cardinal LoE-180ESC™ glass, an enhancement of the successful LoE-180, offers a cozy welcome home while potentially meeting ENERGY STAR® Canada 2020 criteria. By preventing heat loss and harnessing solar warmth with a U-Factor of 1.49 (SI) and an SHGC of 0.71, it makes homes warmer and comfier, perfectly suiting passive solar applications.

| | | |
|----------------------------------|-----------------------------------|---|
| 79% Vis Trans | 0.71 SHGC | Coating Position: 2 Pane |
| 1.51 (SI) U-Factor | 25% UV Transmission | |

Data is produced using LBNL Window 7.8. 2-pane IG units have 13mm airspace and filled to 90% argon.

Benefits of LoE-180ESC

| | | | |
|--|---|--|---|
| Highest Visible Light Transmittance | Effective for Passive Solar Design | Excellent Insulating Capabilities | Great for South Facing Windows |
|--|---|--|---|

While blocking out the cold and harmful sun rays, LoE-180ESC lets in more of the sun's warmth than ordinary low-e glass. The LoE-180ESC coating is applied between layers or anti-reflective metal oxide coatings along with a protective layer to ensure the durability and long life of your glass unit.

| | | |
|----------------------------|-----------------------|-------------------------|
| Laminated options | Custom shapes & sizes | Thicknesses: 2.2 to 6mm |
| Max dimensions: 96" x 144" | | |

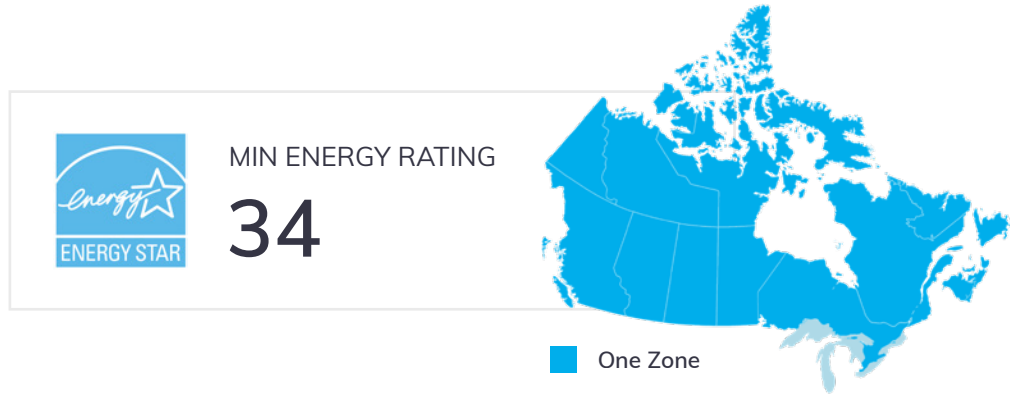
Note: LoE-180ESC is available as annealed, heat-strengthened or tempered glass.

ENERGY STAR 2020 for Canada

ENERGY STAR Canada is managed by Natural Resources Canada (NRCan) and is responsible for promoting energy efficiency and sustainable practices. ENERGY STAR v5.0 requires that windows and doors meet a minimum Energy Rating (ER) of 34 or have a maximum U-Factor of 1.22 (SI) or 0.22 (IP), for all of Canada.

The Energy Rating calculation depends on SHGC, U-Factor, and air leakage rate. When installed in a thermally efficient frame with a low air leakage, **LoE-180ESC™ may meet or exceed ER 34 in double or triple pane IG units.**

Whole-Window Performance Criteria



3/4" Dual Pane with 3mm Glass • 1" Triple Pane with 3mm Glass • 90% Argon

| Center-of-Glass Performance | VISIBLE LIGHT | | FADING | | | U-FACTOR | | |
|-----------------------------|-------------------------------|----------|--------|-----|------|----------|-------------|-------------|
| | Transmission | Exterior | UV | ISO | SHGC | Air Fill | Argon Fill | |
| | | | | | | IP / SI | IP / SI | |
| Dual Pane | ▶ Clear / LoE-180ESC | 80% | 15% | 25% | 62% | 0.71 | 0.31 / 1.76 | 0.26 / 1.50 |
| | ▶ LoE-180ESC / LoE-i89 | 78% | 15% | 24% | 60% | 0.64 | 0.24 / 1.38 | 0.21 / 1.20 |
| Triple Pane | ▶ LoE-180ESC / Clear / 180ESC | 70% | 21% | 10% | 49% | 0.58 | 0.22 / 1.27 | 0.18 / 1.00 |
| | ▶ LoE-180ESC / 180ESC / i89 | 69% | 21% | 9% | 48% | 0.55 | 0.19 / 1.07 | 0.15 / 0.86 |

LBNL Window 7 per NFRC100 conditions. LoE-180ESC is intended for the 3rd surface on a 2-pane insulating glass unit.



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Contact Cardinal CG to learn more about LoE-180ESC and other Cardinal glass products.

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