

USING THIN TRIPLE GLASS IN STOREFRONT SYSTEMS

ENHANCED THERMAL PERFORMANCE REQUIREMENTS

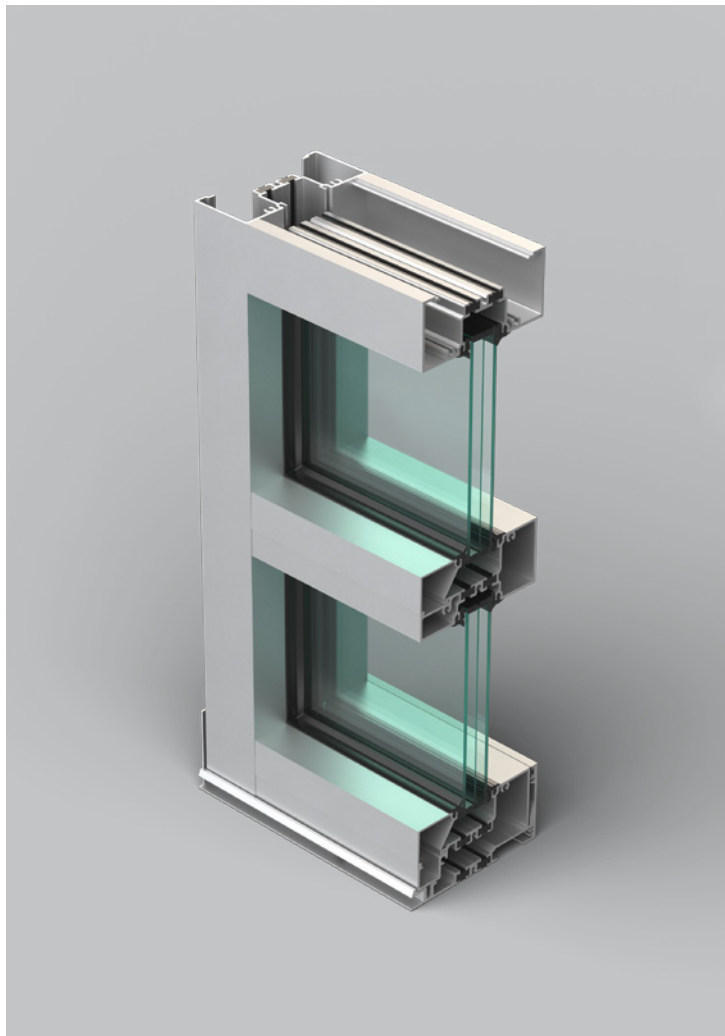
Building energy codes are becoming increasingly stringent across North America. Jurisdictions like Massachusetts and Seattle now require stretch codes with U-factors of 0.25 or lower for glazed fenestration systems. Traditional ultra-thermal storefront systems typically achieve U-factors of 0.30-0.45, making compliance challenging without upgrading to more expensive curtain wall solutions. Additionally, green building certifications, utility rebate programs, and corporate sustainability commitments are driving demand for higher-performance glazing solutions that reduce building energy consumption.

ADVANTAGES OF THIN TRIPLE GLASS IN STOREFRONT

- **Exceptional Thermal Performance:** Achieve center-of-glass U-factors as low as 0.10-0.12, enabling overall system U-factors of 0.19-0.22
- **30% Weight Reduction:** Significantly lighter than traditional triple glazing, enabling larger lite sizes and reducing structural loads
- **System Compatibility:** Fits readily available systems that are designed for nominal 1" IGUs - no frame modifications required
- **Cost-Effective Compliance:** Meet stretch codes without upgrading to curtain wall systems, maintaining project budget targets
- **Advanced Spacer Technology:** Molecular bond warm-edge spacers with 40+ year life expectancy and superior gas retention
- **Design Flexibility:** Maintains visual light transmittance while dramatically improving thermal performance
- **Easy Performance Calculation:** Thin triple glass center-of-glass values can be plugged directly into Kawneer's existing thermal charts with warm-edge spacers to determine overall system performance

KEY TAKEAWAY

For the first time, ultra-thermal storefront systems can achieve stretch code compliance (0.25 U-factor or better) through advanced thin triple glazing technology, eliminating the need for costly curtain wall upgrades while maintaining design flexibility and budget targets.



TECHNICAL PERFORMANCE - TRIFAB® 451UT WITH THIN TRIPLE GLASS

CENTER OF GLASS U-FACTOR	OVERALL SYSTEM U-FACTOR	CODE COMPLIANCE
0.24 (Standard Low-E)	0.31	Climate Zones 1-6
0.20 (Enhanced Low-E)	0.27	Climate Zones 1-7
0.12 (Thin Triple)	0.21	✓ All Stretch Codes
0.10 (Thin Triple)	0.19	✓ All Stretch Codes

*Performance based on NFRC standard size with warm-edge spacer technology