



HOMEOWNER SOUND CONTROL QUICK REFERENCE

STC vs. OITC - Understanding Window Sound Ratings

STC - Sound Transmission Class	A single-number sound rating commonly used for speech and other mid/high-frequency building sounds. Higher STC = better sound isolation.
OITC - Outdoor-Indoor Transmission Class	A single-number rating designed for exterior transportation noise and includes more low-frequency sound, such as road traffic, trucks, aircraft and trains. Higher OITC = better exterior-noise isolation.

20-25	17-21	Older single-pane / basic glass	Limited sound control. Traffic, lawn equipment, barking dogs and other outdoor noises remain very noticeable.
26-29	21-24	Basic insulated / double-pane	Noticeable improvement over old single pane, but louder outdoor noise is still clearly heard.
30-32	24-26	Better-performing double-pane	Good everyday residential sound control. Neighborhood traffic, dogs, lawn equipment and general outdoor noise become noticeably less intrusive.
33-35	27-30	Upgraded glass / mixed thickness / some laminated configurations	Strong residential sound reduction. Traffic and other exterior noise is substantially reduced; louder events can still be heard but are much less disruptive.
36-39	30-33	High-performance acoustic glass / triple-pane / laminated configurations	Very strong sound control. Heavy traffic, lawn equipment and similar outside noises become significantly muted.
40+	34+	Specialized acoustic assemblies	Premium / specialty sound control for unusually noisy locations where maximum reduction is a priority.

IMPORTANT: STC and OITC are separate laboratory ratings. There is **no exact conversion formula** between them. The paired ranges above are a homeowner-oriented comparison guide; the actual STC and OITC for a specific window must come from testing of that exact assembly.

For outside noise, pay close attention to OITC. OITC was specifically developed to evaluate facade performance against transportation noise with strong low-frequency content. STC remains useful, but it was originally developed around speech and similar indoor sounds.

What improves window sound control? Laminated glass - different glass thicknesses - optimized air spaces - additional panes - tight weatherstripping - low air leakage - proper installation and perimeter sealing.