

Acoustic Doors Technical Deep Dive

Detailed specification guide for sound proof doors, sliding doors, swing doors, and folding doors.

Source Basis

- kiranslidocraft.com and kiranslidocraft.co.in door pages: published door content references internal sound-rating results, STC-54 flush communicating doors, paired STC-40 doors, 300 series bottom/top seals, and 54 mm acoustic door thickness.
- kiranslidocraft.com door content: acoustical doors can use normal hardware; frame/hardware selection must account for door weight, gasket position, and automatic bottom seal adjustment.
- kiranslidocraft.co.in catalog: the product range includes sound proof doors, sliding doors, sliding folding doors, and swing doors.
- Kiran Slido Craft video library: includes sound proof sliding door demonstrations and related on-site testing videos.

1. System Purpose

Acoustic doors protect spaces where privacy, speech isolation, machine noise containment, studio control, or hotel/healthcare quietness matters. The door leaf alone is not the system; frame, threshold, seals, hardware, and wall junctions are equally critical.

2. Door Families

Kiran Slido Craft coverage includes hinged acoustic doors, sound proof sliding doors, sliding folding doors, swing doors, and wider acoustic door packages for commercial, studio, industrial, hospitality, institutional, and residential settings.

The operating type should be selected from workflow first: hinged doors for high compression and privacy, sliding doors for spatial constraints, folding/sliding folding doors for wider openings, and steel/industrial formats for plant noise or heavy duty use.

3. Construction Logic

A good acoustic door combines mass, damping, airtight sealing, frame anchoring, threshold control, and hardware alignment. Leaf mass improves blocking, but perimeter leaks can dominate the final site result.

Dense core construction, engineered facings, acoustic insulation, perimeter seals, and drop/threshold seals should be coordinated with the wall rating and room use.

4. Verified Product Facts To Carry Into Specs

- Published door construction note: imported door core.
- Published thickness note: Kiran Slido Craft acoustical doors are described as 54 mm thick.
- Published performance references include STC-54 flush communicating doors and two STC-40 doors installed back-to-back in a common frame.
- Published seal detail references double 300 series bottom seal and top seal for each door.
- Published use areas include conference rooms, theaters, ball rooms, clubs, board rooms, and presentation centers.

5. Specification Inputs

- Opening size, wall type, wall thickness, handedness, traffic cycle, fire or safety constraints, finish, and hardware preference.
- Target acoustic outcome: speech privacy, music isolation, plant-room containment, healthcare quietness, or hospitality comfort.
- Required door type: hinged, sliding, folding, steel, wood, glass-inclusive, or composite construction.
- Threshold condition: raised threshold, automatic drop seal, wheelchair movement, wet-area exposure, or high-cycle traffic.

6. Detail Risks

Common failure points are misaligned frames, weak wall junctions, unsealed conduits near the frame, undercut gaps, poor latch compression, and hardware substitutions after approval.

For studios and plant rooms, the door should not be isolated from the wall design. The wall, frame, door, glazing, HVAC penetrations, and electrical penetrations define the final acoustic envelope.

7. Tender Checklist

- Require leaf construction, frame section, seal schedule, threshold strategy, finish, hardware, shop drawings, and installation responsibility.
- Define acceptance criteria before production: visual finish, operation force, seal engagement, latch alignment, and acoustic verification method if applicable.
- Ask for maintenance guidance because acoustic seals are performance components, not decorative trim.

Next Step

Send drawings, opening sizes, noise context, photos, location, and target performance to info@kiranslidocraft.com for a project-specific engineering response.