



GE DOOR
MANUFACTURING

GE HYGRO DOORSET

EDUCATION RANGE

DATA SHEET

GE HYGROTHERMAL DOORSETS

ENGINEERED FOR EDUCATION | BUILT FOR PERFORMANCE

The Department for Education (DfE) requires selected school doorsets to meet hygrothermal performance standards. Without compliance, doors risk bowing, warping, or failing when exposed to temperature and humidity differences.

The GE Hygrothermal Doorset is the only UK manufactured doorset that has been independently tested and certified to EN 12219:2000, achieving a Class 2 rating for Hygrothermal Bow. This ensures the suitability of the GE Hygrothermal Doorset for DfE requirements; giving architects, contractors, and facilities managers confidence in safety, durability, and long-term performance.

For highly specialist 54mm humidity specification requirements, a Class 3 solution is also available.

Why Hygrothermal Performance Matters

In schools, colleges, and public buildings, internal environments often vary significantly from room to room. Laboratories, kitchens, and changing rooms generate moisture and heat, while classrooms and corridors remain cooler.

Without tested hygrothermal stability, doors can:

- Warp or bow over time.
- Fail under daily use.
- Cause safety and compliance issues.

That's why the DfE requires EN 12219 certification for selected doorsets supplied through its construction frameworks.

Certified Performance to EN 12219 Class 2

The GE Hygro Doorset is tested to the recognised European Standard EN 12219 for climatic performance. This standard assesses:

- Durability under daily use.
- Resistance to temperature & humidity differences.
- Dimensional stability over the long term.

By meeting EN 12219, GE demonstrates that its doorsets perform reliably in real-world conditions - protecting building safety, compliance, and whole-life value.

Key Benefits of the GE Hygro Doorset

Designed for DfE projects

- The DfE requires specific doorsets to comply with EN 12219.
- Using tested doors ensures schools meet official procurement and compliance standards.

Proven Dimensional Stability

- Hygrothermal bow testing demonstrates that the door remains straight and functional even when exposed to changes in temperature and humidity.
- This prevents issues like jamming, warping, or gaps, which are critical in high-use school environments.

Enhanced Durability & Longevity

- Reduces premature failures and costly replacements.
- Provides assurance that doors will perform consistently in the demanding UK school climate (heated classrooms, moist corridors, external exposure).

Safety & Security Assurance

- Stable doors maintain their fit within the frame, which is crucial for fire performance, acoustics, and security.
- Warped or bowed doors could compromise safety standards and escape routes.

Reduced Maintenance Costs

- Schools and contractors avoid ongoing problems such as re-adjustments, planning, or replacing swollen/bowed doors.
- Provides long-term cost efficiency for facilities managers.

Confidence for Architects & Contractors

- Demonstrates independent test evidence that doors meet performance standards.
- Reduces risk of disputes or remedial work, strengthening specification confidence.

Alignment with Best Practice & Quality Assurance

- Shows that the manufacturer is committed to compliance, testing, and continuous improvement, which aligns with DfE's push for higher construction standards in education projects.

Talk to Us

Ready to specify the GE Hygro Doorset for your next project?

Give us a call today on **01656 730070**
or email **info@gedoormanufacturing.co.uk**

TYPICAL CLASSROOM SPECIFICATION, OTHER CONFIGURATIONS AND SPECIFICATIONS AVAILABLE

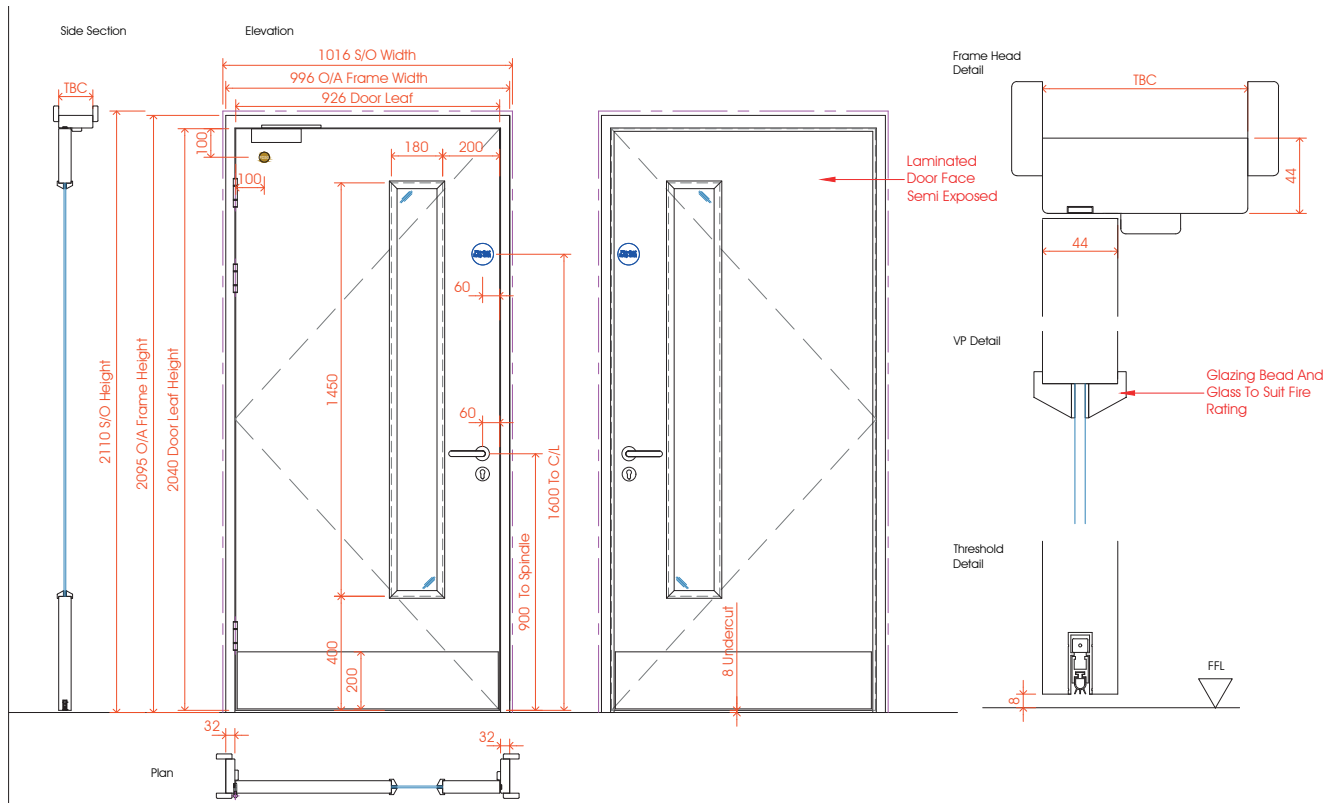


GE DOORS

Description	
Type	Single-leaf, hinged, latched
Use	Education –Typical Classroom
Finish	GE Laminate range
Materials and Construction	
Door Leaf	
Core	GE Severe duty core
Facing	GE Laminate range
Edge lippings	Semi concealed profiled bevel. Hardwood to all four edges. All edges sealed with GE high durability clear finish
Frame	Timber (hardwood/softwood) factory primed OR Prefinished with GE durability Lacquer. Pre-fitted intumescent seals
Glazing Option	Vision panel: (Bolection Bead) 180mm x 1450mm (BS 8300:2018 Minimum Visibility Zone)
Glass	Clear fire-rated safety glass, BS EN 12600 compliant (Min 2B2)
Performance Requirements	
Fire Rating	FD30S or FD60s to BS 476 Part 22
Acoustic Rating	Minimum 32 or 35 dB Rw
Thermal Insulation	Internal use.
Hygrothermal	EN1121 Class 2
Air Leakage	BS 6375 Part 1
Ironmongery & Seals	
Hinges	3no. stainless steel butt hinges (Grade 14, CE marked)
Lock	Classroom mortice escape sashlock Batwing Perimeter seal for smoke protection Installation
Tolerances	As per GE Door Manufacturing installation guidance manual
Fixings	
Lock	Secure into solid wall or timber stud partitions (min 40mm Timber infill and 50mm Fixing). Linear Gap Sealing: Back filling by Door Installer
Standards and References	
BS 476-22	Fire resistance of doorsets
BS EN 1634-1	Fire resistance and smoke control
BS EN 14351-1	Performance requirements for doorsets
BS EN 12600	Safety glazing
BS EN ISO 140-3 / ISO 717-1	Acoustic rating
BS EN1121	Hygrothermal
BS 8300	Inclusive design and accessibility

TYPICAL CLASSROOM SPECIFICATION, OTHER CONFIGURATIONS AND SPECIFICATIONS AVAILABLE

SINGLE DOORSET





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