

Fire Classification DIN EN 13501-2

DIN EN 13501-2 refers to the European Standard for Fire Classification of construction products and building elements using data from fire resistance and smoke leakage tests (excluding ventilation services). The classification is based on a comparable performance principle.

DIN EN 13501-2

E (Integrity) = how long the door and its components can prevent passage of flames and hot gases from the heated side reaching the non-heated side. E60 rating means the door prevents transfer for 60 minutes.

EI (Insulation) = The highest level of protection. Maintaining the “E” integrity performance as well as preventing heat transfer from heated side to non-heated side. A rating of EI45 will maintain both integrity and insulation for 45 minutes.

EW (Radiation Control) = reducing radiant heat transfer from heated side to non-heated side.

Performance	Duration in Minutes								
E	15	20	30	45	60	90	120	180	240
EI ₁	15	20	30	45	60	90	120	180	240
EI ₂	15	20	30	45	60	90	120	180	240
EW	-	20	30	-	60	-	-	--	-

EI₁ ≤140° max rise <180°C (The duration in minutes rating means it has kept the protected side within 180°C for that time period during testing. This indicates the insulation and time it takes for fire to spread from room to room in relation to escape of people in the event of a fire. Different materials ignite at different temperatures – specific critical temperature control and performance requirements need to be considered for each unique environment)

EI₂ ≤140° max rise <360°C

Standard EN 1363-1

EN 1363-1 establishes the European Standard general principles for determining fire resistance of various elements of construction when subjected to standard fire conditions. Additional procedures are provided for in EN1363-2 to meet special requirements.

Standard EN 1634-1

EN 1634-1 refers to the European Standard for testing fire-resisting door, shutter assemblies and openable windows. When tested to EN 1634-1, a door fire-rated to T30/EI30 must not permit a fire to propagate for at least 30 minutes.

Standard DIN EN 14600

DIN EN 14600 refers to the European requirements and classification of door assemblies and openable windows with fire resisting and/or smoke control characteristics. Classes are C0-C5 with C0 tested up to 499 cycles and the highest C5 at 200 000 cycles. Testing the durability of closing, the door must close repeatedly from 90° to 0° in 3-5 secs and remain working after the test.

S Classification – refers to Smoke, Class S200 indicates that smoke permeability is limited up to 200°C