

TECHNICAL GUIDANCE NOTES

FIRE RATINGS

Euroclass Fire Ratings

Reaction to fire, often called the Euroclass system gives building products a classification. The 'Reaction to fire' classes test three properties of the building material: spread of fire, smoke intensity and burning droplets. Most building materials sold on the European market must be assigned a file indicating its fire resistance based on a Euroclass rating system. There are 7 Euroclasses of reaction to fire performance for construction products which extend from A1 to F.

Euroclasses and the target safety level

| Euro-class | Target safety level |
|------------|--|
| A1 | No contribution to fire even under fully developed fire conditions |
| A2 | Only negligible contribution to fire even under fully developed fire conditions; no spread of fire from the area of the primary fire in the fire development phase |
| B | In the fire development phase, no spread of fire from the area of the primary and very limited contribution to the fire |
| C | Under the conditions of a fire in the development phases, very limited spread of fire and limited energy release and ignitability |
| D | Under the conditions of a fire in the development phases, limited spread of fire and acceptable energy release and ignitability |
| E | In the case of a very small fire (match flame) acceptable reaction to fire (ignitability, flame spread) |
| F | No requirements concerning the reaction to fire |

Additional assessment classes for smoke development and burning droplets/particles

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|----------------------------|---|
| Smoke development | s3 (there are no restrictions regarding smoke development) s2 (the fully released amount of smoke, and the rise in smoke development are restricted) s1 (stricter criteria than for s2 must be fulfilled) |
| Burning droplets/particles | d2 (there are no restrictions) d1 (burning droplets not longer than the defined time) d0 (dripping fire debris is not permitted) |

What is the Difference Between Fire Retardant and Flame Retardant?

Fire retardant and flame retardant both work to prevent fires, in occurrence of fires to stop the spread and help to reduce the amount of damage caused by flames. Both are invaluable to protecting homes and structures and provide extra time to for residents to safely evacuate a building if a fire does occur.

What is a Fire Retardant?

A fire retardant is a substance that is used to slow down or stop the spread of fire or reduce its intensity. This is commonly accomplished by chemical reactions that reduce the flammability of fuels or delay their combustion.

The Delta Fire Retardant range has been manufactured with DELTASAFE, a new innovative fire-retardant property which enables our MS 500 membrane to achieve a Euroclass rating of **B-S2, d0** in accordance with EN 13501-1:2018. Fire retardant Type C Cavity Drainage Membranes can considerably improve the reaction to fire of normal Type C Cavity Drainage Membranes.

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