



Thermal insulation (I) is a criterion that measures the rise in temperature of the door on the protected side.

To measure this rise in temperature, **thermocouples** are placed at different standardised points of the door.

In addition to the fixed thermocouples, a mobile thermocouple is used to take measurements at points that are likely to exceed the authorised temperatures.

Insulation is subdivided into two categories which apply in different countries: **I1 and I2.**

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| I1 | | I2 | <ul style="list-style-type: none"> ○ Average temperature rise: max. 140°C ■ Maximum temperature: max. 180°C ■ Maximum temperature frame: max. 180°C I1, max. 360°C I2 ● Maximum temperature (additional operating mode): max. 180°C |
|----|--|----|---|

I1

I2

The average of the five fixed thermocouples positioned in a cross in the centre of the leaf may not exceed a temperature rise of 140°C. None of these points may exceed a temperature rise of 180°C.

All the fixed thermocouples (positioned at least **25 mm** from the visible edges of the leaf), as well as the mobile thermocouple, may not exceed a temperature rise of 180°C.

The fixed thermocouples placed on the frame may not exceed a temperature rise of **180°C**.

All the fixed thermocouples (positioned at least **100 mm** from the visible edges of the leaf), as well as the mobile thermocouple, may not exceed a temperature rise of 180°C.

The fixed thermocouples placed on the frame may not exceed a temperature rise of **360°C**.

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