



CE marking of Hinges for Fire Doors

“The Facts”

THE FACTS

- CE marking **is mandatory** in all European countries with the exception of the UK, Eire, Sweden and Portugal.
- Within the UK and under the Construction Products Directive it is required that all hinges should comply to the following Standards:-
 - **BS EN 1935: 2002 Single Axis Hinges Requirements and Test methods.**
 - **BS EN 1634: 2000 Part 1 Fire Doors and Shutters.**
- The ‘additional’ and minimum requirement, in order to ‘CE’ mark, is the auditing of the Factory Production Controls by an independent ‘Notified Body’ to check that hinges are manufactured to controlled standards thereby ensuring that product supplied to the ‘end user’ is consistent with product tested and approved to the above standards.
- Suppliers who claim and provide evidence, products comply with the above standards but do not CE mark their products create **an element of doubt**, in that their manufacturing and quality controls are not able to satisfy the above ‘basic’ requirement for CE marking.

Can you afford or want to take that risk? Non-conformity of product and the consequential liability and damages can be very costly.
- **FOR PEACE OF MIND** look for the ‘Certifire Logo’ or other evidence that the source of your supply, not only meets the minimum criteria for CE marking but also operate a full **Quality Management System** which complies with the requirements of **BS EN ISO 9001: 2000.**

Your insurance to consistent quality supply.

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Product Performance

‘Product performance requirements continues to increase’

As European Standards are adopted, in addition to the change in Building Regulations, particularly regarding the increase in requirement for fire doors, emergency escape routes, wider doors for disabled access and ‘door controls’ the demand on ‘hinge performance’ with ‘guarantees’ continues to increase.

Taking a chance to save a few pence could be extremely costly.

Product Specification

Prior to the current Standard covering ‘The Performance of Single Axis Hinges’ the major volume of hinge specification was Class **8** with a design door mass capacity of **80 Kgs.** in accordance the old Standard **BS 7352: 1990. (Heavy Duty)**

The respective ‘hinge grade’ under the current Standard is **Grade 11** and suitable for a maximum **Total Design Door Mass of 80 Kgs (Heavy Duty)**

As previously stated, with the improvements required to comply with European Fire Test Standard **BS EN 1634: 1990 Part 1** FD30 fire doors (30 minutes) currently having a door mass of up to 37.5 kg. could exceed this and taking into consideration the additional allowances for door width, door closer and fittings the Design Door Mass could exceed 80 kg

Example:

DOOR MASS		DOOR WIDTH ALLOWANCE		DOOR CLOSER ALLOWANCE
Door Mass 37.5kg Closer Weight 2.3kg Lock 0.9kg Push/Pull handle and kicking plate 2.1kg Total mass 42.8 kg	+	1200mm wide door allowance required: +20%		Heavy Duty closer with hold open device. Allowance required: +75%
		8.56 Kg		32.1KG

Total Design Door Mass 83.46 Kg therefore minimum Grade 12 required.



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FD60 (60 minute) fire door mass vary from 40 to 70kg., and even with standard door closers it would be advisable to use grade 12 or 13.

- **Refer to our 'Guide to the Specification of Single Axis Hinges'.**

Additionally and in accordance with the Standard BS EN 1935: 2002 other major criteria now **precludes the use of Heavy Duty hinges** and requires the minimum grade 12 (Severe Duty) for other applications as described below

Extracts from the Standard BS EN 1935; 2002

- **Annex C (Hinges for use on burglar resistant doors)**
C2 'Hinges shall conform to the requirements of Sever Grades 12, 13 and 14'
Note: Grade 13 and 14 should be specified when increase resistance to potentially persistent violent attack is required.
- **Annex E (Hinges for doors fitted with door closers)**
'Door closers which include hold-open or back check facility can impose substantially increased stresses on the hinges and their fastenings. Hinges of grade 12, 13 and 14 should be used with such closers'
- **Stock Inventory can be very costly.**
- Can you be assured that Grade 10 hinges will not be used on doors requiring 'sever' application – **can you afford to take that risk.**
- Keep your stock range simple and be confident that hinges supplied will satisfy demand.

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