

Construction parameter	Variation	Influence of variation on performance characteristic			Possibility of extension	Additional evidence required
(1)	(2)	(3)			(4)	(5)
		E	I	W		
C.1.43 Face fixed closer or automatic drive	Alternative	=	=	=	Possible providing the alternative closer/drive has been tested in a full scale or small scale test Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset or small scale test according EN 1634-2
C.1.44 Concealed closer or automatic drive (mounted in the door leaf or the frame)	Alternative manufacturer/supplier/type	=	=	=	Possible providing the closer /drive has been tested in a full scale or small scale test with the door leaf opening outwards, and that the size of the cut-out is not increased from that tested. If tested with EI doors only, the result is only applicable to EI doors but if tested on E doors the result is applicable to EI, EW and E doors Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset
C.1.45 Concealed closer / drive	Change of location (door leaf to frame or vice versa)	> / = / <	> / = / <	> / = / <	Not possible without an additional test	Additional test can be single or double leaf doorset
C.1.46 closer / automatic drive - See Figure A.53	Change of location (concealed for face mounted or vice versa)	> / = / <	> / = / <	> / = / <	Not possible without an additional test	Additional test can be single or double leaf doorset

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(1)	(2)	(3)			(4)	(5)
C.1.47 Power cable and protective conduits for electric locks (fitted in the door leaf or frame) - See Figure A.54	Add	E	I	W	Possible to add power cable and conduit providing the positioning of such cable or conduit shall not detract from the rigidity of the profiles and the conduit inside the door leaf and frame is made of metal Where the door leaf and the frame are connected via a cable transfer device it also shall be metal and any cut out in the door leaf and frame should not reduce the intumescent seal, if any Where the cable is outside the leaf and frame the conduit shall be of metal and have a diameter not greater than 16mm Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset
	Alternative	=	=	=	Possible providing for E, EW and EI2: Alternative conduits placed in the rebate shall be of the same design and be placed in the same position. Intumescent seals may not be additionally affected Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset
C.1.48 Power cable and protective conduits for electric locks (fitted in the door leaf or frame)						

Construction parameter	Variation	Influence of variation on performance characteristic			Possibility of extension	Additional evidence required
(1)	(2)	E	I	W	(4)	(5)
C.1.49 Additional items of spy holes/key tubes - See Figure A.55	Add	=	=	=	Possible providing that the component has been tested in either a full scale or small scale test in a similar panel construction Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset or small scale test according EN 1634-2
C.1.50 Alarm contacts and proximity switches	Add	=	=	=	Possible	
C.1.51 Alarm contacts and proximity switches	Alternative	=	=	=	Possible	
C.1.52 Door signs (Reaction to fire class A1)	Add	=	=	=	Possible providing that any break through is limited to screw fixings and their covering and that the fixings do not break both sides Otherwise not possible without an additional test	Additional full scale test can be single or double leaf doorset or small scale test according EN 1634-2
C.1.53 Door signs (<Reaction to fire class A1)	Add	=	=	=	Possible for EI doorsets only providing that the fixing do not break both sides and the location is at least 25 mm for EI1 and 100 mm for EI2 from the edge of the door leaf Otherwise not possible without additional test.	Additional full scale test can be single or double leaf doorset or small scale test according EN 1634-2
C.1.54 Pivots with single action accessories (shoe and top centre) with or without floor / transom mounted closing devices	Exchange from hinges	< =	< =	< =	Not possible without an additional test	Additional test to include the specific closer and accessories

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(1)	(2)	(3)			(4)	(5)
		E	I	W		
C.1.55 Pivots with single action accessories (shoe and top centre) with or without floor / transom mounted closing devices	Exchange to hinges				Possible providing the hinges, including fixing technique and hinge positions, have been successfully tested on a similar doorset and providing a previously proven closing device is added	
C.1.56 Threshold 'drop' seal/automatic seal	Add	> / = / <	> / = / <	=	Not possible without an additional test	Additional full scale test can be single or double leaf doorset or small scale test according to EN 1634-2 both including the required seal type
C.1.57 Threshold 'drop' seal/automatic seal	Remove	> / = / <	> / = / <	=	Not possible without an additional test	Additional full scale test can be single or double leaf doorset or small scale test according to EN 1634-2 both including the required threshold condition
C.1.58 Threshold seal	Alternative	> / = / <	> / = / <	=	Possible to exchange a tested threshold seal, for another one, tested in a doorset of the same or more onerous configuration where the leaf construction is fundamentally the same as tested Otherwise additional test required	Additional full scale test can be single or double leaf doorset including the required seal type

Construction parameter	Variation	Influence of variation on performance characteristic			Possibility of extension	Additional evidence required
(1)	(2)	(3)	E	I	W	(4)
D. Support / attachment - door leaf to framing						
D.1. General						
D1.1. Gap dimensions (door leaf to frame)	Increase/decrease	≤	≤	≤	Possible in line with direct application beyond the field of direct application rules not possible without an additional test	Additional test can be single or double leaf case (worst direction)
E. Side / transom panels and over panels						
<i>Existing direct application rules for size variations, side and transom panels, door leaves and frames are also applicable for variations in side, transom panels and over panels.</i>						
<i>The maximum tested height of doorset with side panels and/or over panels, can only be increased in line with the direct application rules.</i>						
<i>The maximum tested width of doorset with side panels and/or over panels, may be increased in by applying the following rules.</i>						
E.1. Side, over and transom panel arrangements						
Before there can be any consideration for the variation in side and over panel arrangements the doorset shall have been tested in accordance with EN 1634-1 to achieve a test result which could generate a classification in accordance with EN 13501-2 at least equal to the classification subsequently required from extended application considerations. The rules in the table below can only be applied: - For single doorset if a single doorset without side/transom panels has also been tested and could be classified in accordance with EN 1634-1 and EN 13501-2 respectively in order to establish a classification for the doorset. - For double doors: if a double doorset without side/transom panels has also been tested and could be classified in accordance with EN 1634-1 and EN 13501-2 respectively in order to establish a classification for the doorset. If the original doorset test was conducted only on a single doorset without side/transom panels or flush over panels then only the single door arrangements from the following variations will be permissible. If the original doorset test was conducted only on a double doorset without side/transom panels or flush over panels then only the double door arrangements from the following variations will be permissible. Variations outside the arrangements in figures together with the table below are possible if the proposed alternative arrangement is covered by variations permitted in other parts of this standard. If not covered, an additional test will be necessary.						

Construction parameter	Variation	Influence of variation on performance characteristic			Possibility of extension	Additional evidence required
(1)	(2)	(3)			(4)	(5)
		E	I	W		
E.1.1 Side/transom panel arrangement - See Annex B	Additional or variations of alternative arrangements in accordance with the table below	≤	≤	≤	A successful test on an arrangement indicated in the left hand column of the table below would allow the variations in arrangement indicated by numbers '1' or '2' in the same row assuming the fixing/ retention method of the panelling system is retained Otherwise not possible without additional, specific test	Test using test specimens according Annex B
E.1.2 Hinged flush over panel arrangement instead of fixed Panel	Alternative	≤	≤	≤	Not possible without an additional test	Test using test specimen according Annex B incorporating hinged over panel
E.1.3 Fixed flush over panel arrangement instead of hinged Panel	Alternative	> =	> =	> =	Possible	

Tested	Allows																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
2	-	1	-	1	1	1	-	1	1	1	1	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
3	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
4	-	1	-	1	1	1	-	1	1	1	1	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
5	-	1	-	1	1	1	-	1	1	1	1	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
6	-	-	-	-	-	1	-	1	1	1	1	1	-	-	2	-	2	-	2	-	2	2	2	2	1	1	1	2	2
7	-	-	-	-	-	-	1	1	1	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
8	-	-	-	-	-	-	-	1	1	-	-	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
9	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-
13	-	-	-	-	-	-	1	1	1	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
14	-	-	-	-	-	-	-	1	1	-	-	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
15	-	-	-	-	-	-	-	1	1	-	-	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
16	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	2	-	-	-	-	2	2	2	2	1	1	1	2	2
17	-	-	-	-	-	-	1	1	1	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
18	-	-	-	-	-	-	-	1	1	-	-	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
19	-	-	-	-	-	-	1	1	1	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
20	-	-	-	-	-	-	-	1	1	-	-	1	-	2	2	2	-	2	-	2	2	2	2	2	1	1	1	2	2
21	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-

Key symbols:

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E.2. General <i>For variations of intumescent / draught / smoke seals the rules defined in section A.1 are applicable for side / transom panels and over panels.</i> <i>For variations of ventilation grilles (louvres) the rules defined in A.1. are applicable for side / transom panels and over panels.</i> <i>For variations of rebates to panel edges the rules defined in A.1. are applicable for side / transom panels and over panels.</i>						
E.3. Size variations of side, transom and/or over-panels						
E.3.1 Size (area, width, height) - all distortions	Decrease	≥	≥	≥	E and EW unlimited reduction is Possible EI: possible to decrease to a minimum dimension of the glass as it is mentioned in rule F.1.4 Otherwise not possible without an additional test	Additional test can be larger panel arrangement incorporating single or double leaf doorset
E.3.2 Size (area, width, height) - all distortions	Increase	≤	=	≤	Possible for doorsets have achieved category B up to 20 % providing additional (for EW) a thermal emission calculation in accordance with EN 15254-4 within the 15 KW limit. Otherwise not possible without an additional test	
F. Glazing for door leaf / leaves or side / transom and flush over panels						
F. 1 General Glass panels on their own do not have a classification. The fire resistance classification is derived from testing in specific edge framing techniques. Where fire resistance classification is referred to in this section, these may be determined by alternative testing of glass panels of the same or larger height and/or width to those tested by the particular door test(s). Where “similar edge fixing technique” is referred to, this means that the technique used in the original door test should be replicated exactly in terms of the retention detail or that the technique may be modified to accommodate a technique proven in an alternative test to determine fire performance characteristics.						

F.1.1.1 Thickness of glass – See Figure A.56a	Increase	≥	≥	≥	Possible to exchange one thickness of fire-resistant glass for another with the same (or better) fire resistance performance provided that it can be demonstrated that the new glass of the thickness required is within the same glass product family (same manufacturer) and has a similar edge fixing technique only modified to accommodate the alternative thickness and that the alternative thickness does not add more than 25 % to the weight of the door leaf otherwise not possible without an additional test Glass Product Family is defined in 3.7 of EN 15254-4.	Additional test can be single or double leaf doorset (open outwards), glazing beads inside the furnace
F.1.1.2 Thickness of glass – See Figure A.56b	Decrease	> / = / <	> / = / <	> / = / <	Possible to exchange one thickness of fire-resistant glass for another with the same (or better) fire resistance performance provided that it can be demonstrated that the new glass of the thickness required is within the same glass product family (same manufacturer) and has a similar edge fixing technique only modified to accommodate the alternative thickness Otherwise not possible without an additional test Glass Product Family is defined in 3.7 of EN 15254-4	Additional test can be single or double leaf doorset (open outwards)