

## Statement on the influence of locks to the fire resistance of doors

| Requested by: Abloy Oy

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Order: 15.6.2005 Esa Parjanen

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### Statement on the influence of locks to the fire resistance of doors

**Request** The client requests a statement concerning the influence of lock types to the fire resistance of doors. The lock types are presented in Table 1.

The client has sent construction confirmations from the lock types that have corresponding mechanical and electrical constructions than locks that have been tested at VTT.

*Table 1. The lock types*

Series	The lock types	Backsets	Distance between cylinder and spindle	Operating principle
EL52X	EL520 and EL522	55 to 100 mm	72 mm PZ, 74 mm RZ	Motor lock
	EL524	50	70 mm	
EL56X	EL560, EL561, EL562 and EL563	55 to 100 mm	72 mm PZ, 74 mm RZ	Solenoid lock
	EL564 and EL565	50	70 mm	
EL36X	EL360 and EL362	55 to 100 mm	72 mm PZ, 74 mm RZ	Mechanical lock with microswitches
	EL365	50	70 mm	
EL16X	EL160 and EL162	55 to 100 mm	72 mm PZ, 74 mm RZ	Mechanical lock
	EL165	50	70 mm	

**Test results** Following test reports of VTT support this statement:

- RTE1238/05
- RTE2020/05
- RTE1202/04

**Statement**

We state as our opinion that above mentioned locks used in the metal, wooden or glazed wooden doors do not decrease classification of the doors as shown below:

1. *The locks can be used in the following doors **classified according to European standard EN 13501-2** (tested according to European standard EN 1634-1) without that classification of the door decreases:*

- In metal doors:  
Classes from EI<sub>1</sub>15 to EI<sub>1</sub>60 and Classes from EI<sub>2</sub>15 to EI<sub>2</sub>60
- In wooden doors:  
Classes from EI<sub>1</sub>15 to EI<sub>1</sub>30 and Classes from EI<sub>2</sub>15 to EI<sub>2</sub>30
- In double or single leaf glazed wooden doors:  
Classes from EI<sub>1</sub>15 to EI<sub>1</sub>30 and Classes from EI<sub>2</sub>15 to EI<sub>2</sub>30

2. *The locks can be used in the following doors **classified in Finland** without that classification of the door decreases:*

- In metal doors: Classes from EI15 to EI120
- In wooden doors: Classes from EI15 to EI30
- In double or single leaf glazed wooden doors: Classes from EI15 to EI30

All locks shall be fixed according to the installation instruction given by Abloy Oy.

In appendices 1 to 5 is presented general drawings of the locks and installation drawing for hardware of the locks. Detail drawings of the locks are stored in the archive of VTT with this statement.

**Annotation**

If any changes are made to the construction of the locks this statement is not valid.

This statement is not the approval of the products but the evaluation of the fire resistance of these constructions.

Espoo, 30 June 2005



Riitta Kajastila  
Group Manager



Olavi Tenhunen  
Senior Research Scientist

**APPENDICES**

- Appendix 1 Installation drawing
- Appendix 2 Drawing of lock types EL520, EL522, EL360, EL362, EL160 and EL162
- Appendix 3 Drawing of lock types EL560, EL561, EL562 and EL563
- Appendix 4 Drawing of lock types EL524 and EL165
- Appendix 5 Drawing of lock types EL564 and EL565

**DISTRIBUTION**

Client, 2	Original
VTT/RTE10/Archive, 1	Original