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**Expert assessment for the application of
different mechanical
locking cylinders according to
DIN EN 1303 of ABUS
August Bremicker Söhne KG, Wetter
for use in fire and
smoke protection doors - Translation**

Case handler:

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49762 Lathen, 11.02.2020

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Kruse

Woitschik

1 Initiation – Task

ABUS August Bremicker Söhne KG, Wetter commissioned DMT GmbH & Co. KG with the preparation of an expert opinion regarding the suitability of various mechanical locking cylinders according to DIN EN 1303 for use in fire and smoke protection doors.

2 Basis of assessment

The basis for this expert opinion is DIN EN 1303:2015-08 " Building hardware - Cylinders for locks - Requirements and test methods", which requires a statement on the suitability of the profile cylinders for use in fire and smoke protection doors during product classification.

3 Expertise

3.1 Versions to be assessed

The ABUS August Bremicker Söhne KG provides the following locking cylinder systems made of brass in the essential dimensions according to DIN 18252 for appraisal:

- **E50" series cylinders (E50PS, E5, E55 Buffo and Citadel) in double, half, knob and short cylinder versions, knob and short cylinders**

3.2 Assessment

In accordance with section 6.5 of DIN EN 1303:2015-08, reference is made to annex A for the test procedure for the suitability of locking cylinders for use in fire and smoke protection doors. This annex A requires a fire test according to EN 1634-1 or EN 1634-2 for Class B products suitable for use in fire and smoke protection doors to verify the effect of the product on the fire resistance of the complete door. Optionally, a fire test can be spared if the material for the locking cylinder parts which serve to prevent the spread of fire has a melting point of at least 840 °C.

ABUS August Bremicker Söhne KG, Wetter, has provided DMT GmbH & Co. KG data sheets and design drawings for this expert opinion, which have been reviewed and evaluated. The documents are deposited at DMT GmbH & Co. KG and are not part of this assessment. These documents show that the essential components of the locking cylinder systems listed in Section 3.1, such as housing, knob, core, knob core and core extension, are made of the brass alloy CuZn39Pb3. According to the data sheet of the German Copper Institute the solidus and liquidus temperatures for CuZn39Pb3 are 875 °C resp. 890 °C. Thus, the melting point of the essential components of the locking cylinders, which serve to prevent the spread of fire, is above the required temperature of 840 °C. The documentation is deposited at DMT GmbH & Co. KG.

According to the manufacturer's declaration of ABUS August Bremicker Söhne KG, Wetter, the products **E50PS**, **E5**, **E55 Buffo** and **Citadel** are technically identical in construction with the assessed series E50 and can be included in the assessment report. The manufacturer's declaration is deposited with DMT GmbH & Co. KG.

3.3 Summary

The locking cylinder systems of ABUS August Bremicker Söhne KG, Wetter listed in section 3.1 meet the requirements of DIN EN 1303:2015-08 Annex A and are therefore suitable for use in fire and smoke protection doors. In the corresponding classification key, they can be marked with class B in the fourth position.

4 Special notes

This expert opinion only assesses the suitability of various mechanical locking cylinders according to DIN EN 1303 of August Bremicker Söhne KG, Wetter for use in fire/smoke protection doors. Further requirements such as durability or other requirements of DIN EN 1303 are not part of this expert assessment.

49762 Lathen, 11.02.2020

Bearbeiter

A handwritten signature in blue ink, appearing to read "Woitschik".

Woitschik