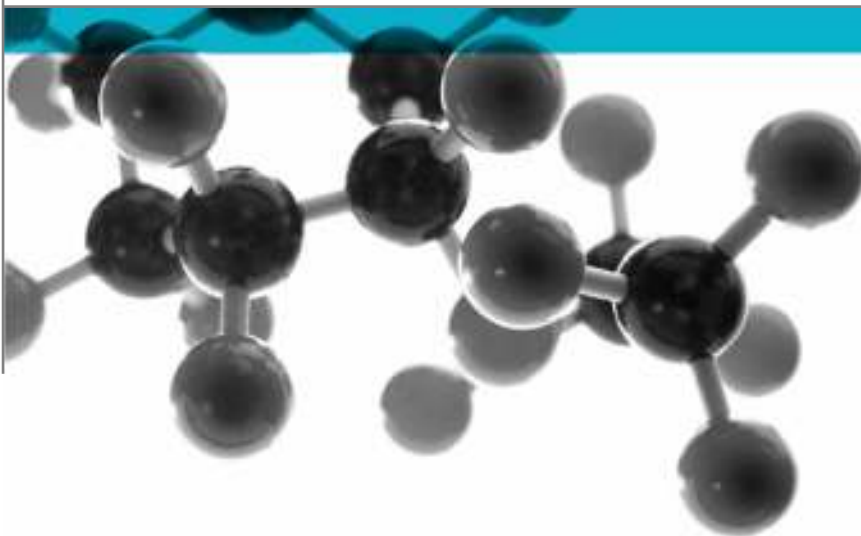


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BS EN 1303:2005



ASSESSMENT OF CYLINDERS FOR LOCKS

A Report To: Archibald Kenrick & Son Ltd

Document Reference: WIL 344347

Date: 09.09.14

Copy: Draft

Issue No.: 1

Page 1

Testing
Advising
Assuring



TEST CONCLUSIONS

Samples of:

Manufacturer Archibald Kenrick & Son Ltd

Product Euro Profile Cylinder

Model Kenrick Standard Cylinder

Size 50mm x 50mm

have been tested in accordance with:

BS EN 1303:2005 Building Hardware - Cylinders for locks

By Exova Warringtonfire [A UKAS accredited Testing Laboratory (No. 0621) and EC Notified Body number 1104]

At Key Industrial Park, Fernside Rd, Willenhall. West Midlands, WV13 3YA.

Results and comments as detailed below:

Clause No.	Description	Compliance
4.2	Key strength	Yes
4.3	Durability – grade 6	Yes
4.5	Fire resistance	NT
4.7	Corrosion resistance – grade C	Yes
4.7.1	General	Yes
4.7.2	Operation at extremes of temperature	Yes
4.8	Key related security- grade 3	Yes
4.8.2	Minimum number of effective differs – grade 3	Yes
4.8.3	Minimum number of movable retainers – grade 4	Yes
4.8.4	Maximum number of identical steps – grade 5	Yes
4.8.5	Direct coding on key – grade 5	Yes
4.8.6	Operation of security mechanism- grade 5	Yes
4.8.7	Torque resistance of plug/cylinder relevant to key related security – grade 5	Yes
4.9	Attack resistance- grade	NT
4.9.1	Resistance to attack by drilling-grade	NT
4.9.2	Resistance to attack by chisel-grade	NT
4.9.3	Resistance to attack by twisting-grade	NT
4.9.4	Resistance to attack by plug/cylinder extraction-grade	NT
4.9.5	Torque resistance of plug/cylinder relevant to attack resistance -grade	NT
7	Marking - classification on	Yes
	Documents, labelling or packaging and/or by marking the product itself	

No inferences can be made regarding performance against other requirements of this standard

Tests marked “NA” are not applicable to the type of device under test.

Tests marked “NT” cannot be applied to the type of device under test

AUTHORISATION

Tests performed by: Nathan Pilsbury – Hardware Laboratory Manager
Report issued by: Nathan Pilsbury – Hardware Laboratory Manager Signed Date For and on behalf of Exova Warringtonfire
Report authorised by: Steve Wilkes – Deputy Manager Signed Date For and on behalf of Exova Warringtonfire
Report issued: 09.09.14



0621

NOTE.

Tests marked "Not UKAS Accredited" are not covered by the Laboratory UKAS accreditation schedule.

Tests marked NT were not tested

Tests marked NA are not applicable to the product on test.

The laboratory has tested the product supplied by the client as sampled in accordance with their own requirements

Exova Warringtonfire is an EC Notified Body Number 1104

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DRAFT REPORT

TEST DETAILS

CLIENT DETAILS

Company name Archibald Kenrick & Son Ltd
 Address

Contact Mr Steve Williams

ORDER DETAILS

Order number Pro forma
 Dated 01.09.14

SAMPLE DETAILS

Product Euro Profile Cylinder
 Model Kenrick Standard Cylinder
 Size 50mm x 50mm
 Markings AK
 Manufacturer Apecs
 Date of Manufacture Unknown
 Other information None

TEST DETAILS

Test reference nos. 344347
 Date sample received 28.07.14
 Date test started 05.08.14
 Date test completed 21.08.14
 Specification tests conducted to BS EN 1303:2005 Building hardware - Cylinders for Locks
 Class and or Category None
 Special Test requirements None
 Other reports to be used in conjunction with this report 342417

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 Author: Nathan Pilsbury Issue Date: 09.09.14
 Client: Archibald Kenrick & Son Issue No.: Draft



INITIAL OBSERVATIONS

Manufacturer's security information

Clause No.	Specification	Requirement	Detail
5.8.1	Minimum number of effective differs	Grade 1 = 100, Grade 2 = 300 Grade 3 = 15,000, Grade 4 = 30,000 Grade 5 = 30,000, Grade 6 = 100,000	15,625 Differs
5.8.2	Minimum number of movable retainers	Grade 1 = 2, Grade 2 = 3 Grade 3 = 5, Grade 4 = 5 Grade 5 = 6, Grade 6 = 6	5 moveable retainers
5.8.3	Maximum number of steps at same level	Grade 1 100% Grade 2 70% with max 2 adjacent Grade 3 60% with max 2 adjacent Grade 4 60% with max 2 adjacent Grade 5 60% with max 2 adjacent Grade 6 50% with max 2 adjacent	60% with max. 2 adjacent
5.8.4	Direct coding on key	Not permitted on grades 3, 4, 5 and 6	No coding

TEST RESULTS

Sample 1 and 2 (For key related security 1, 2, 3)

Clause No.	Specification	Requirement	Result or Detail		P = Pass F = Fail
			1	2	
5.8.5	Operation of security mechanism	Cylinder operates with correct key Next closest key will not operate with torque of 1.5 Nm	Yes	Yes	Pass
			Does not operate	Does not operate	
5.7	Operation at extremes of temperature	Cylinder at -20°C key at +18°C Torque of 1.5 Nm must operate cylinder once in 5 attempts Cylinder at +80°C key at +18°C Torque of 1.5 Nm must operate cylinder once in 5 attempts	-20°C	-20°C	Pass
			Yes	Yes	
			80°C	80°C	
			Yes	Yes	
5.3	Durability	Operation = rotation for full operating angle against torque of 0.15 Nm with key insertion before rotation and removal after rotation Grade 4 = 25k cycles Grade 5 = 50k cycles Grade 8 = 100k cycles Must operate with a new key at max torque of 1.5 Nm	Angle	360°	Pass
			No of cycles	100,000	
			Operates	Yes	
			Yes	Yes	
5.2	Key strength	Cylinder blocked torque of 2.5 Nm applied to key for 5 seconds Cylinder unblocked key removed & then reinserted cylinder should operate with max torque of 1.5Nm	Torque applied Nm	2.5Nm	Pass
			Operates	Yes	

Sample No.9 and 10 (For all Key related security grades)

Clause No.	Specification	Requirement	Result or Detail		P = Pass F = Fail	
			9	10		
5.8.6	Torque resistance of plug/cylinder relevant to key related security	Not possible to rotate plug with torque of: Grade 1 2.5 Nm Grade 2 5.0 Nm Grade 3 15 Nm Grade 4 15 Nm Grade 5 15 Nm Grade 6 15 Nm	Torque Operates	15Nm applied Does not operate	15Nm applied Does not operate	Pass

Sample No. 11

Clause 5.5 suitability for fire door use, included in fire test to EN 1634-1
See report number for evidence

Sample No.12 and 13

Clause No.	Specification	Requirement	Result or Detail		P = Pass F = Fail	
			12	13		
5.7	Corrosion resistance	For corrosion resistance to be claimed minimum of 96 hours exposure to neutral salt spray required. Cylinder must operate with torque of 1.5 Nm	Exposure time Operates	96 hours Yes	96 hours Yes	Pass

Clause 7 Marking

Classification achieved

Category of use	Durability	Door mass	Fire resistance	Safety	Corrosion resistance & temperature	Key related security	Attack resistance
1	6	----	0	---	C	3	0

Classification quoted on:
All documents

Labelling or packing and/or on cylinder
Written confirmation supplied by customer

OBSERVATIONS AND COMMENTS

Classification quoted on:
All documents

Labelling or packing and/or on cylinder
Written confirmation supplied by APECS

Cylinder condition during test

Satisfactory throughout the entire test programme

Key condition during test

Satisfactory throughout the entire test programme

Lubrication applied

WD40 applied every 10,000 cycles

The Kenrick Standard 50mm x 50mm Euro Profile Cylinder has successfully passed all the relevant clauses tested in accordance to EN 1303:2005.

- End of report -

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Revision History

Issue No :	Re - Issue Date :
Revised By:	Approved By:
Reason for Revision:	

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DRAFT REPORT