

# TEST REPORT



**Title:** ICL Plus 6 Pin Eurocylinder –  
Evaluation to EN 1303:2005

**Report Number:** WTE/09/020

**On behalf of:** UAP Limited  
Bank House  
16 – 18 Bank Street  
Walshaw  
Bury  
Lancashire  
BL8 3AZ

**Date:** 6/12/2009

White Technology and Engineering Ltd  
Weeke Farm  
Cruwys Morchard  
Tiverton  
Devon  
EX16 8PG

[admin@wteltd.eu](mailto:admin@wteltd.eu)

## Introduction

It was requested that White Technology and Engineering Ltd carry out an evaluation of the ICL Plus 6 Pin Eurocylinder to EN 1303:2005 to a grading level of:

1	2	3	4	5	6	7	8
Category of use	Durability	Door Mass	Fire resistance	Safety	Corrosion Resistance And temperature	Key related security	Attack resistance
1	6	0	0	0	C	5	2

This is the grade required by BS 3621.

The results are presented below:

## Results

### Cylinders 1, 2

Minimum numbers of effective differs as required by EN 1303 cl. 5.8.1

Box 7	1	2	3	4	5	6
<b>Differs</b> No	100	300	15,000	30,000	30,000	100,000
65474	P	P	P	P	P	

Minimum numbers of moveable detainers as required by EN 1303 cl. 5.8.2

Box 7	1	2	3	4	5	6
<b>Detainers</b> No	2	3	5	5	6	6
6	P	P	P	P	P	P

Maximum number of steps on the same level (maximum two adjacent), as required by EN 1303 cl.5.8.3

Box 7	1	2	3	4	5	6
<b>Steps</b> Percentage	100	70	60	60	60	50
33%	P	P	P	P	P	P

Carry out check on the direct coding on key in accordance with EN 1303 cl. 5.8.4

Box 7	1	2	3	4	5	6
<b>Coding</b>	Yes	Yes	No	No	No	No
No	P	P	P	P	P	P

Carry out an operation at extremes of temperature test to EN 1303 cl 5.7

Cool the cylinders to -20°C temperature and test for operation

Cylinder	Torque	Pass/Fail
	1.5 Nm	
1	<0.2	P
2	<0.2	P

Heat the cylinders to +80°C temperature and test for operation

Cylinder	Torque	Pass/Fail
	1.5 Nm	
1	<0.2	P
2	<0.2	P

Carry out Durability testing on the cylinders to EN 1303 cl 5.3

Box 2	4	5	6
Cycles	25,000	50,000	100,000
Cylinder 1	P	P	P
Cylinder 2	P	P	P

Carry out an operation (interpassing) test to EN 1303 cl.5.8.5

Cylinder	Pass/Fail
1	P
2	P

Carry out key strength operation to EN 1303 cl. 5.2

Torque	Operating torque	Pass/Fail
2.5Nm	Nm	
Cylinder 1	<0.2	P
Cylinder 2	<0.2	P

Carry out a resistance to attack by chisel to EN 1303 cl. 5.9.2

Chisel Blows	Box 8	0	1	2	
			30	40	
	Opened Y/N				Unable to apply chisel when fitted to manufacturer's instructions.
Cylinder 1	N/T	N/T	N/T	N/T	
Cylinder 2	N/T	N/T	N/T	N/T	

Note: Fitting instructions state that cylinders must not protrude more than 3mm.

**Cylinders 3, 4**

Carry out a resistance to drilling attack using HSS drill bits in accordance with EN 1303 cl. 5.9.1

Time	Box 8	0	1	2
5min 0 sec	<b>Opened</b>		3	5
	Y/N			
Cylinder 3	N	P	P	P
Cylinder 4	N	P	P	P

**Cylinders 5, 6**

Carry out a resistance to twisting operation to EN 1303 cl. 5.9.3

Total Twists	Box 8	0	1	2	
1 twist	<b>Opened</b> Y/N		20	30	Sacrificial element of cylinder removed when fitted to manufacturer's instructions.
Cylinder 5	N	P	P	P	
Cylinder 6	N	P	P	P	

**Cylinders 7, 8**

Carry out a force resistance to plug/cylinder extraction to EN 1303 cl. 5.9.4

Time Min	Box 8	0	1	2	
5 min 0 sec	<b>Opened</b> Y/N		3	5	Sacrificial element of cylinder removed but unable to open. Unable to drive screw deep enough to remove cylinder/plug in time available
Cylinder 7	N	P	P	P	
Cylinder 8	N	P	P	P	

**Cylinders 9, 10**

Carry out torque resistance of plug/cylinder to EN 1330 cl 5.8.6

Torque	Box 7	1	2	3	4	5	6
<b>Nm</b>		2.5	5.0	15.0	15.0	15.0	15.0
Cylinder 9	15.0	P	P	P	P	P	P
Cylinder 10	15.0	P	P	P	P	P	P

<b>Torque</b>	<b>Box 8</b>	<b>0</b>	<b>1</b>	<b>2</b>
Nm			20	30
Cylinder 9	30.0	P	P	P
Cylinder 10	30.0	P	P	P

### **Cylinders 12, 13**

Place in corrosion cabinet for 96 hours in accordance with EN 1670 cl. 5.6 and assess in accordance with EN 1303 Annex B.

After removing from the corrosion cabinet it shall be possible to operate the cylinder with the proper key using a maximum torque of 1.5Nm.

Cylinder	Torque	Pass/Fail
	1.5 Nm	
12	0.4	P
13	0.4	P

## Summary

The following results were obtained for the UAP - ICL Plus 6 Pin Eurocylinder – when submitted for evaluation to EN 1303:2005.

Requirement	Classification Box	CEN Grade
Extremes of Temperature -20°C	6	C
Extremes of Temperature + 80°C	6	C
Durability	2	6
Operation Test	7	5
Key Strength		Pass
Chisel	8	2
Drilling	8	2
Twisting	8	2
Resistance to plug/cylinder extraction	8	2
Torque to the plug/cylinder	7	5
Torque to the plug/cylinder	8	2
Corrosion	6	C
Differs	7	5
Minimum number of moveable detainers	7	5
Maximum number of steps	7	5

N/A: Test not applicable for grade submitted.

N/T: Test not carried out due to design of cylinder

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

Overall EN 1303:2005 Classification attained.

1	2	3	4	5	6	7	8
Category of use	Durability	Door Mass	Fire resistance	Safety	Corrosion Resistance And temperature	Key related security	Attack resistance
1	6	0	0	0	C	5	2

Report authorised by:



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Dr Martin White  
Director

Date: 6 December 2009

**REPORT ENDS**

## Appendix A – Photographs of Sample



UAP - ICL Plus 6 Pin Eurocylinder

## Appendix B – General Vulnerability Assessment

In addition to the assessment to EN 1303, it was requested that WTE Ltd carry out a General Vulnerability Assessment of the cylinder. The test method was that detailed in BS 3621:2007 amd. 1, cl. A6 (Additional procedure for the assessment of lock Cylinders). Three independent locksmiths were appointed to carry out the assessment according to the requirements of the standard. All three locksmiths were of the status required by the standard.

### Results

All locksmiths passed the cylinder according to the standard.

The standard requires all the Locksmiths to pass the lock.

### Summary

When evaluated to BS 3621:2007 cl. A6 the UAP - ICL Plus 6 Pin Eurocylinder met the requirements of the standard.