

Manufacturer (trade mark):	Clover Germany	Type/Model OEM:	80C2HK0
Lot/Part number:	DPCCX410BE	Toner color(s):	BLACK
Main application:	To be used on the relevant printers according to remanufacturer instructions		
Intended yield:	4000		
	752715304LEC4 / 752715946CHD1 / 7527469463FBP	Take over value of existing test protocol :	(box) Yes, from ISO19798
Test device:			
Test climate:		Relative humidity:	46
Temperature:	25		
Deviations of the determined test conditions		Test location 2):	CLOVER SERBIA
Tester 1):	Aleksandar Kojic		
Test date:	11.9.2017		

1) If values are taken over from test protocol, the signing person is responsible, that the protocols, from which the values have been taken off, are plausible and correct.

2) Either testing place or place where the protocol is made

Test sample (A)	Type	Used for valuation	Charge/Serial number
1	4885	Yes	Sample 1
2	4835	Yes	Sample 2
3	4485	Yes We use for A1 the	Sample 3
4	4090	Yes MAX, for A2 the	Sample 4
5	4120	Yes MEDIAN and for A3 the	Sample 5
6	4155	Yes MIN value of the list at	Sample 6
7	4129	Yes left	Sample 7
8	4420	Yes	Sample 8
9	4316	Yes	Sample 9
Comparing Sample (B)	Type	Used for valuation	Charge/Serial number
1	4000	Yes/no Yes	OEM Sample/Spec
2	4000	Yes/no Yes	OEM Sample/Spec
3	4000	Yes/no Yes	OEM Sample/Spec
4		Yes/no	
5		Yes/no	

OEM data taken from OEMs own
ISO19752 or ISO19798 declarations of
yield

Administrative checking of health related attributes (5.2)

Is there an EG- Safety Data Sheet of the used toner?

Yes/no Yes

If there are no information of the AMES test in the EG Safety Data Sheet

Is there a test report about the AMES test of the used toner?

Yes/no Not Aplicable

If not: Description All MSDSs mention Ames test

Checking the influence of the toner module on the printer (5.3)

Is the toner leaking less than the original?

Yes/no Yes

Is the interaction between printer and toner module acceptable?

Yes/no Yes

If not: Description

Checking the initialization (5.4)

Is the print out acceptable right after the toner module has been inserted?

Yes/no Yes

If not: Describe fault

Checking the yield number (5.5)

BLACK

	1	2	3	Average ($\bar{A}$ or $\bar{V}$)
Yield A: $(A1+A2+A3)/3=\bar{A}$	4885	4316	4090	4430
Yield V: $(V1+V2+V3)/3=\bar{V}$	4000	4000	4000	4000

Alternative:

Yield A: Result of test after ISO/IEC 19752 $\bar{A}$

Reference to the test protocol:

Test date:

Yield V: Result of test after ISO/IEC 19752 $\bar{V}$

Reference to the test protocol:

Test date:

Result: $EZ=\bar{A}/\bar{V}$

1,11

Is the expected yield (EZ) reached?

Yes No Not Aplicable

Is the expected page yield reached?

YES

Checking the black print/Color reproduction (5.6.2)

Average value of the 2 areas F test print A1: 20,9

Average value of the 2 areas F comparing print V1: 22,3

Difference is not higher than $\Delta \leq 5$ for Monochrome Not Aplicable

Color difference $\Delta E \leq 18$ for Color 1,4

Average value of the 2 areas F test print A2: 21,5

Average value of the 2 areas F comparing print V2: 22,2

Difference is not higher than $\Delta \leq 5$ for Monochrome Not Aplicable

Color difference $\Delta E \leq 18$ for Color 0,7

Average value of the 2 areas F test print A3: 21,4

Average value of the 2 areas F comparing print V3: 21,2

Yes/No/Not Aplicable Not Aplicable

Yes/No/Not Aplicable Yes

Yes/No/Not Aplicable Not Aplicable

Yes/No/Not Aplicable Yes

Difference is not higher than $\Delta \leq 5$ for Monochrome
Color difference $\Delta E \leq 18$ for Color

Not Aplicable
0,2

Yes/No/Not Aplicable
Yes/No/Not Aplicable

Not Aplicable
Yes

Checking the fade (5.6.3)

BLACK

Test print A1				
Color values 1 6 A F	1	6	A	F
after 50 pages	86	66,3	46,3	21,2
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,6	3,2	4,2	0,8
Comparing print V1				
Color values 1 6 A F	1	6	A	F
after 50 pages	87,6	65,2	42,8	21,5
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,7	3,6	4,8	1,3
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	0,9	0,4	0,6	0,5
Difference within allowed parameters	YES	YES	YES	YES

Test print A2 BLACK				
Color values 1 6 A F	1	6	A	F
after 50 pages	86,8	68,4	49,8	22,5
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,6	4,7	6,9	1,9
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	87,1	64,9	44	21,1
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,4	3	3	2,4
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	1	1,7	3,9	0,5
Difference within allowed parameters	YES	YES	YES	YES

Test print A3 BLACK				
Color values 1 6 A F	1	6	A	F
after 50 pages	85,3	56	34,6	21
Color values 1 6 A F	1	6	A	F
The biggest deviation	3,1	12,4	13	1,2
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	86,9	63,1	43,6	20,5
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,4	6,9	10,3	1,3
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	2,7	5,5	2,7	0,1
Difference within allowed parameters	YES	YES	YES	YES

Checking toner adhesion

Test process: visual (tape method):

Is the resistance in between the acceptable parameters? Yes
If not: Describe deviation

Checking the grey page/color uniformity (5.6.5)

Are the color differences in between the acceptable parameters (pattern B2-B5) $\Delta E \leq 8$? Yes

If not: Describe deviation

Checking the background (5.6.6)

Is the background smudge between the acceptable parameters (pattern B1-B5)? Yes

If not: Describe deviation

Checking the ghosting (5.6.7)

Is the repeating of the back rectangles in between the acceptable parameters (pattern B2-B5)? Yes

If not: Describe deviation

Checking toner miscibility (5.6.8)

Is the toner miscibility given? Yes

If not: Describe deviation

OVERALL RESULT: Passed