

Manufacturer (trade mark):	Clover Germany	Type/Model OEM:	80C2HC0
Lot/Part number:	DPCCX410CE	Toner color(s):	CYAN
Main application:	To be used on the relevant printers according to remanufacturer instructions		
Intended yield:	3000		
	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	4208	Yes	Sample 1
2	4325	Yes	Sample 2
3	3860	Yes	Sample 3
4	3351	Yes	Sample 4
5	3521	Yes	Sample 5
6	3520	Yes	Sample 6
7	3416	Yes	Sample 7
8	3580	Yes	Sample 8
9	3618	Yes	Sample 9

Comparing Sample (B)	Type	Used for valuation	Charge/Serial number
1	3000	Yes/no	OEM Sample/Spec
2	3000	Yes/no	OEM Sample/Spec
3	3000	Yes/no	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)

CYAN

	1	2	3	Average ($\bar{A}$ or $\bar{V}$)
Yield A: $(A1+A2+A3)/3=\bar{A}$	4325	3580	3351	3752
Yield V: $(V1+V2+V3)/3=\bar{V}$	3000	3000	3000	3000

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: $EZ=\bar{A}/\bar{V}$	1,25

	Yes	No	Not Aplicable
Is the expected yield (EZ) reached?	YES		
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:	48,6		
Average value of the 2 areas F comparing print V1:	48,4		
Difference is not higher than $\Delta \leq 5$ for Monochrome	Not Aplicable	Yes/No/Not Aplicable	Not Aplicable
Color difference $\Delta E \leq 18$ for Color	0,2	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A2:	48,8		
Average value of the 2 areas F comparing print V2:	48,3		
Difference is not higher than $\Delta \leq 5$ for Monochrome	Not Aplicable	Yes/No/Not Aplicable	Not Aplicable
Color difference $\Delta E \leq 18$ for Color	0,5	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A3:	49		
Average value of the 2 areas F comparing print V3:	46,9		

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

Not Aplicable
2,1

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

Not Aplicable
Yes

Checking the fade (5.6.3)

CYAN

Test print A1				
Color values 1 6 A F	1	6	A	F
after 50 pages	91	73,9	59,6	48,8
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,9	0,7	0,6	1,7
Comparing print V1				
Color values 1 6 A F	1	6	A	F
after 50 pages	90,2	72,8	59,3	48,3
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,9	1,3	1,4	1,5
Result determination				
Difference $\Delta L \leq 8$	1	0,6	0,8	0,2
Difference within allowed parameters	YES	YES	YES	YES

Test print A2 CYAN

Color values 1 6 A F	1	6	A	F
after 50 pages	90,4	73,5	60,9	48,1
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,6	0,9	1,1	1
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	89,1	73	58,9	47,9
Color values 1 6 A F	1	6	A	F
The biggest deviation	1	1,9	2,5	1,7
Result determination				
Difference $\Delta L \leq 8$	0	1	1,4	0,7
Difference within allowed parameters	YES	YES	YES	YES

Test print A3 CYAN

Color values 1 6 A F	1	6	A	F
after 50 pages	87,6	70,1	57,1	46,9
Color values 1 6 A F	1	6	A	F
The biggest deviation	4,5	6	4,8	3
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	89,6	72,4	58,6	45,3
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,8	2,1	1,5	2,7
Result determination				
Difference $\Delta L \leq 8$	3,7	3,9	3,3	0,3
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**