

Anex C - DIN33870-Mono/Color

Manufacturer (trade mark):	Clover Germany	Type/Model OEM:	CF360A
Lot/Part number:	DPCM553ABE	Toner color(s):	BLACK
Main application:	To be used on the relevant printers according to remanufacturer instructions		
Intended yield:	6000	Take over value of existing test protocol :	(box) Yes, from ISO19798
Test device:	JPBVJ9M1PF / JPBVJ370X5 / CNBVH5N0LZ		
Test climate:			
Temperature:	24	Relative humidity:	44
Deviations of the determined test conditions			
Tester 1):	Aleksandar Kojic	Test location 2):	CLOVER SERBIA
Test date:	21.03.2018		

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	6038	Yes	Sample 1
2	7412	Yes	Sample 2
3	6066	Yes	Sample 3
4	7185	Yes	Sample 4
5	6281	Yes	Sample 5
6	6201	Yes	Sample 6
7	6745	Yes	Sample 7
8	6191	Yes	Sample 8
9	6486	Yes	Sample 9

We use for A1 the MAX,
for A2 the MEDIAN and
for A3 the MIN value of
the list at left

Comparing Sample (B)	Type	Used for valuation	Charge/Serial number
1	6000	Yes/no Yes	OEM Sample/Spec
2	6000	Yes/no Yes	OEM Sample/Spec
3	6000	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			Average (\bar{A} or \bar{V})
	1	2	3	
Yield A: $(A1+A2+A3)/3=\bar{A}$	7412	6281	6038	6577
Yield V: $(V1+V2+V3)/3=\bar{V}$	6000	6000	6000	6000

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: $EZ=\bar{A}/\bar{V}$	1,10

	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:	24,1		
Average value of the 2 areas F comparing print V1:	25,8		
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	1,7	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A2:	32,4		
Average value of the 2 areas F comparing print V2:	26,3		
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	6,1	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A3:	24,7		
Average value of the 2 areas F comparing print V3:	26,2		
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

Yes/No/Not Applicable

Checking the fade (5.6.3)

BLACK

Test print A1

Color values 1 6 A F	1	6	A	F
after 50 pages	87,7	68,2	43,4	25,8
Color values 1 6 A F	1	6	A	F
The biggest deviation	2,8	1,5	4,7	3,2

Comparing print V1

Color values 1 6 A F	1	6	A	F
after 50 pages	88,4	67,7	47,9	27,8
Color values 1 6 A F	1	6	A	F
The biggest deviation	2,1	3,1	7,3	4,6

Result determination

Difference $\Delta L \leq 8$	1	6	A	F
	0,7	1,6	2,6	1,4
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	89,1	69,6	46,2	34,7
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,8	2,5	3,3	3,7

Comparing print V2

Color values 1 6 A F	1	6	A	F
after 50 pages	87	67,2	46,7	28,4
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,8	1,7	4,7	4,6

Result determination

Difference $\Delta L \leq 8$	1	6	A	F
	0	0,8	1,4	0,9
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	89,7	69,2	41,8	25,1
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,4	4	4,3	1,3

Comparing print V2

Color values 1 6 A F	1	6	A	F
after 50 pages	87,7	67,3	46,9	28
Color values 1 6 A F	1	6	A	F
The biggest deviation	0,9	2,4	5,9	3,9

Result determination

Difference $\Delta L \leq 8$	1	6	A	F
	0,5	1,6	1,6	2,6
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? N/A
 If not: Describe deviation

OVERALL RESULT: Passed