Anex C - DIN33870-Mono/Color

Manufacturer (trade mark):	**Clover Germany**	Type/Model OEM:	CF400A
Lot/Part number:	**DPCM252ABE**	Toner color(s):	**BLACK**
Main application:	To be used on the relevant printers according to remanufacturer instructions		
Intended yield:	1500		
Test device:	VNC3N18044 / VNC3B48247 / VNC3B48324	Take over value of existing test protocol :	(box) Yes, from ISO19798
Test climate:			
Temperature:	23	Relative humidity:	41
Deviations of the determined test conditions			
Tester 1):	Aleksandar Kojic	Test location 2):	**CLOVER SERBIA**
Test date:	**17.1.2018**		

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	1800	Yes	We use for A1 the MAX, for A2 the MEDIAN and for A3 the MIN value of the list at left	Sample 1
2	1836	Yes		Sample 2
3	1870	Yes		Sample 3
4	1802	Yes		Sample 4
5	1827	Yes		Sample 5
6	1869	Yes		Sample 6
7	2117	Yes		Sample 7
8	1963	Yes		Sample 8
9	1910	Yes		Sample 9

Comparing Sample (B)	Type	Used for valuation		Charge/Serial number
1	1500	Yes/no	Yes	OEM Sample/Spec
2	1500	Yes/no	Yes	OEM Sample/Spec
3	1500	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 (Ā or V)
Yield A: (A1+A2+A3)/3= Ā	2117	1869	1800	1929
Yield V: (V1+V2+V3)/3=V	1500	1500	1500	1500

Alternative:

Yield A: Result of test after ISO/IEC 19752 Ā	
Reference to the test protocol:	
Test date:	
Yield V: Result of test after ISO/IEC 19752 V	
Reference to the test protocol:	
Test date:	
Result: EZ=Ā/V	1,29

	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:	25,1		
Average value of the 2 areas F comparing print V1:	26,1		
Difference is not higher than ∆≤5 for Monochrom	Not Aplicable	Yes/No/Not Aplicable	Not Aplicable
Color difference ∆E≤18 for Color	1	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A2:	25,2		
Average value of the 2 areas F comparing print V2:	26,5		
Difference is not higher than ∆≤5 for Monochrom	Not Aplicable	Yes/No/Not Aplicable	Not Aplicable
Color difference ∆E≤18 for Color	1,3	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A3:	29		
Average value of the 2 areas F comparing print V3:	26,1		
Difference is not higher than Δ≤5 for Monochrom	Not Aplicable	Yes/No/Not Aplicable	Not Aplicable

Color difference ΔE≤18 for Color	2,9		Yes/No/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	83,5	64,8	42,2	25,5
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,7	0,8	3,8	1

Comparing print V1

Color values 1 6 A F	1	6	A	F
after 50 pages	84,9	67,5	42,5	26,4
Color values 1 6 A F	1	6	A	F
The biggest deviation	3,1	2,3	3,4	0,6
Result determination	1	6	A	F
Difference ΔL≤8	1,4	1,5	0,4	0,4
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	81,4	63,8	41,9	25,2
Color values 1 6 A F	1	6	A	F
The biggest deviation	3,5	3,1	4,5	0,3

Comparing print V2

Color values 1 6 A F	1	6	A	F
after 50 pages	85,2	66,4	41,9	27,4
Color values 1 6 A F	1	6	A	F
The biggest deviation	3,2	0,4	2,1	1,4
Result determination	1	6	A	F
Difference ΔL≤8	0	2,7	2,4	1,1
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	82,2	63,3	41,4	30,2
Color values 1 6 A F	1	6	A	F
The biggest deviation	3,1	3,5	2,6	2

Comparing print V2

Color values 1 6 A F	1	6	A	F
after 50 pages	83,8	66,7	41,8	26
Color values 1 6 A F	1	6	A	F
The biggest deviation	4,1	0,7	2,3	0,7
Result determination	1	6	A	F
Difference ΔL≤8	1	2,8	0,3	1,3
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 diferences in between the acceptable parameters (pattern B2-B5) ΔE≤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**