

Manufacturer (trade mark):	Clover Germany	Type/Model OEM:	TN-329BK
Lot/Part number:	DPC-TN329BE	Toner color(s):	BLACK
Main application:	To be used on the relevant printers according to remanufacturer instructions		
Intended yield:	6000		
	E73444C5J197444 / E73444A5J184060 / E73444A5J184051	Take over value of existing test protocol :	(box) Yes, from ISO19798
Test device:			
Test climate:			
Temperature:	21	Relative humidity:	42
Deviations of the determined test conditions			
Tester 1):	Aleksandar Kojic	Test location 2):	TRS EUROPE
Test date:	18.4.2016		

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	6035	Yes	Sample 1
2	6036	Yes	Sample 2
3	6031	Yes We use for A1 the	Sample 3
4	6040	Yes MAX, for A2 the	Sample 4
5	6037	Yes MEDIAN and for A3 the	Sample 5
6	6037	Yes MIN value of the list at	Sample 6
7	6034	Yes left	Sample 7
8	6033	Yes	Sample 8
9	6035	Yes	Sample 9

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

	1	2	3	Average ($\bar{A}$ or $\bar{V}$)
Yield A: $(A1+A2+A3)/3=\bar{A}$	6040	6035	6031	6035
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: $EZ=\bar{A}/\bar{V}$	1,01

Is the expected yield (EZ) reached?
Is the expected page yield reached?

Yes	No	Not Aplicable
YES		
YES		

Checking the black print/Color reproduction (5.6.2)

Average value of the 2 areas F test print A1:	20,6		
Average value of the 2 areas F comparing print V1:	21		
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	0,4	Yes/No/Not Aplicable	Yes
Average value of the 2 areas F test print A2:	20,4		
Average value of the 2 areas F comparing print V2:	20,6		
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 A3:	20,8		
Average value of the 2 areas F comparing print V3:	20,8		

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

Not Applicable
0

Yes/No/Not Applicable
Yes/No/Not Applicable

Not Applicable
Yes

Checking the fade (5.6.3)

BLACK

Test print A1				
Color values 1 6 A F	1	6	A	F
after 50 pages	79,4	60,8	45	23,3
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,7	4,4	0,9	4,4
Comparing print V1				
Color values 1 6 A F	1	6	A	F
after 50 pages	81,3	64	47	24,1
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,2	0,9	0,9	4,3
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	0,5	3,5	0	0,1
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	80,2	63	47	23,1
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,6	2,8	1,5	4,2
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	81,4	65,7	47,6	22,7
Color values 1 6 A F	1	6	A	F
The biggest deviation	2	0,9	1,6	3,1
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	0	1,9	0,1	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	80,5	61,8	47,2	24,2
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,1	1,9	0,7	5,2
Comparing print V2				
Color values 1 6 A F	1	6	A	F
after 50 pages	80,3	64,7	47,6	23,3
Color values 1 6 A F	1	6	A	F
The biggest deviation	1,2	1,6	1,6	3,6
Result determination				
Difference $\Delta L \leq 8$	1	6	A	F
	0,1	0,3	0,9	1,6
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