

Introduction:

For carbonless paper it is important that the reaction between the two coating layers of the papers is sufficient by writing or typing. In this case the contrast between the coloured area and the non coloured area must be good enough so the text can be read well. This leaflet describes a method to check the imaging of carbonless paper.

Principle:

Two strips (CB and CF) of carbonless paper are brought into contact with each other under a very high pressure on an IGT printability tester. In this way it is imitated what happens by (type) writing. After this the contrast density of the formed coloured strip is measured. The higher the density, the better the reaction and the better a text can be read.

Method of operation:

- It is recommended to execute the test in the standard atmosphere; to most standards it is 23.0 ± 1.0 °C (73.4 ± 1.8 °F) and $50 \pm 2\%$ rh.
- For the operation of the AIC2-5T2000 and Global Standard Tester follow the instructions of the manual, IGT information leaflet W100 and the display carefully.
- Handle the samples to be tested carefully.

Preparation

1. Condition the papers and the equipment during > 6 hours in the standard atmosphere.
2. Cut the CF and CB paper strips (preferable 55 x 340 mm, 5 strips per sample) and mark them with "F" and "B" side, machine and/or cross direction and a code for the type of material.
3. For AIC2-5T2000 only:
 - 3.1. Mount the packing on the sector. See W100.
 - 3.2. Adjust the printing force for the upper printing disc shaft to 700 N and pay attention for the right backlash for both shafts. See W100.
 - 3.3. Adjust the printing speed to 0.2 m/s in the constant speed mode (□).
4. For GST 2/3/3H only:
 - 4.1. If not present, mount the sector with clamps. See W100.
 - 4.2. Mount the packing on the sector. See W100.
 - 4.3. Select the menu "Carbon Imaging" in the display.
5. Place the printing disc on the (upper) printing disc shaft of the tester.
6. Check the functioning of the tester following the instructions in the chapter "Execution".

Execution

1. Mount a CB strip and a CF strip with the coated sides to each other on the sector.
2. Select "Make print" in the display.
3. Press the side buttons to move the sector into the starting position and to make a "print"
4. After the sector has stopped, release the side buttons.
5. Remove the test strips from the sector.
6. Measure the test result as explained in the chapter "Assessment".
7. Repeat point 1 thru 6 for every strip.
8. After having finished the tests, clean and store all parts as described in the manual.
9. Make an accurate record of the conditions and the test results of the test.

Materials / testing conditions

1	IGT AIC2-5T2000 or IGT Global Standard Tester 2 or IGT global Standard Tester 3 or IGT Global Standard Tester 3H	710.000.000 412.000.000 416.000.000 467.000.000
2	Printing disc, metal, 5 mm	402.321
3	Packing, paper, 55 mm	404.001.005
4	Sector with clamps (for GST 2/3)	361.000.000
5	Strips of CF and CB paper to be tested, preferable 55 x 340 mm, 5 sets of strips per sample.	
6	Densitometer	
Printing force		700 N
Printing speed		Constant, 0.2 m/s
The numbers 1 thru 4 are available at IGT Testing Systems. ► This leaflet contains article numbers per January 1st, 2006 ◀.		

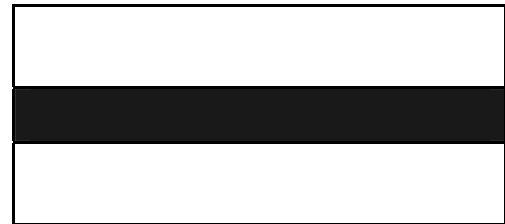


Fig.1: Print of carbonless paper

Assessment

1. Measure the contrast density of the coloured image of the paper 10 times on every single strip.
2. Repeat the density measurements for every strip.
3. Calculate the average and if required the standard deviation.
4. Sometimes it can be useful to mention the highest and lowest values as well.

Notes:

1. The test results of the AIC2-5T2000, AIC2-5 and Global Standard Tester 2, 3 and 3-H compare well with one another, on the condition that they have been carried out under the same conditions.

► In comparison to older IGT leaflets, this leaflet is valid for the AIC2-5T2000 and Global Standard Testers as mentioned

This information leaflet has been compiled with the utmost care. However, may you find any inadequacies or if there are any comments, we kindly request you to send these to IGT Testing Systems, Sales Department.