



I N S T I T U T E of Biopolymers & Chemical Fibres

90-570 Łódź, ul. M. Skłodowskiej-Curie 19/27, POLAND
Tel.: +48 42 6376744, 6380352 • Fax.: +48 42 6376214



AB 065

Laboratory of Paper Quality

Tel./Fax. +48 42 636 88 23, Tel. +48 42 638 03 50, e-mail: icplpap@ibwch.lodz.pl, elabarane@ibwch.lodz.pl

Your reference: **date of receipt 20.07.2011**

Łódź, **28.07.2011**

Test report No. 238/1

Copy no ¹.....

1. The orderer: **IP BELGIAN SERVICES COMPANY SPRL,**

CHAUSSÉE DE LA HULPE 166, B - 1170 BRUSSELS, Belgium

2. Examined object -marking of the sample in laboratory:

copy paper "New Stiff 170 CIE", grammage about 86 g/m², size A4, one ream (a`500 sheets).

Marking of the sample in laboratory: **238/1.**

3. Date of getting the samples: **20.07.2011.**

4. Sampling: **the Orderer.**

5. Testing:

5.1. The atmosphere for conditioning and testing: **PN-EN 20187:2000 (50±2% r.h., 23±1⁰C), (idt ISO 187:1990).**

5.2. Date of testing: **25÷27.07.2011.**

5.3. Results:

Measured properties	Units	Results		Procedure	Requirements by EN ISO 9706:1998 (idt ISO 9706:1994)
		mean value	precision ¹⁾		
1. Tearing resistance (manufacturer Lorentzen&Wettr, model number 4-1, p=8, n=4, for 4 sheets torn simultaneously): a) machine direction b) cross direction	mN	577 742	S=48 S=70	PN-EN 21974:2002 (idt EN 21974:1994)	<i>for papers of grammage ≥ 70 g/m² at least 350 mN in both directions</i>
2. Alkali reserve	mol/kg	2,9	R=0,02	PN-ISO 10716:2009 (idt ISO 9706:1994)	<i>at least 0,4 mol/kg</i>
3. Kappa number	-	1,7	R=0,02	PN-85/P-50095/02 (eqv ISO 302:1981)	<i>less than 5</i>
4. pH ₂₀ of aqueous extract	-	8,6	R=0,07	PN-84/ P-50109 (eqv ISO 6588:1981)	<i>7,5 to 10,0</i>

¹⁾ precision: S-standard deviation, R-difference between the two duplicates.

5.4. Testing persons: **G. Nowacka, A. Świętonowska, M. Ciepliński.**

Head of Laboratory of Paper Quality

Elżbieta Baranek, Dr eng. mech.

The report was issued in two identical copies:
- copy no 1 - for the Orderer
- copy no 2 - for the Performer

- Notes:**
- The examinations results refer only to the examined sample.
 - Test report belongs to the orderer and can be used only upon his agreement.
 - Without agreement of our laboratory this test report can be reprinted only as a whole.
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Tel./Fax. +42 636 88 23, Tel. +42 638 03 50, e-mail: icplpap@ibwch.lodz.pl, elabaranek@ibwch.lodz.pl

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Statement to Test report No. 238/1

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Marking of the sample in laboratory: **238/1.**
3. Date of getting the samples: **20.07.2011.**
4. Sampling: **the Orderer.**
5. Statement:
Tested copy paper "New Stiff 170 CIE" meet requirements of the standard EN ISO 9706:1998 (idt ISO 9706:1994) „Information and documentation - Paper for documents - Requirements for permanence”.

Head of Laboratory of Paper Quality


Elżbieta Baranek, Dr eng. mech.