PORTABLE CONTACT ANGLE ANALYSER PGX

The PGX is a compact instrument that measures wetting and absorption on virtually any size or shape surface without the need to cut sample strips required by other contact angle testers.

This enables the surface testing of almost any 3-dimensional product including :

• a table top
• the roof or bumper of a car
• drywall board
• a glass bottle
• a metal can

The PGX provides automated testing.
Simply place the instrument on top of your specimen and press a button. The internal pump delivers a precise droplet, which is automatically delivered on the test surface. The built-in camera captures a video sequence of the liquid droplet and results are presented as static contact angle or dynamic wetting and liquid penetration as a function of time.
These results are invaluable for evaluating and controlling a wide range of processes including adhesion, corona treatment, absorption, surface contamination, surface sizing, printability and wettability.

PGX computer control

The PGX offers the ease of computer-controlled testing, analysis and reporting. Simply connect the PGX to a standard laptop or PC with an USB interface and start the software.
The PGX receives power from the USB connection and a live video image will appear in the computer monitor.

*The PGX provides contact angle
of any size specimen*

Features

• Measurement of :
- **Static contact angles**
  wetting of non-sorptive surfaces
- **Dynamic contact angles**
  wetting, absorption and spreading as a function of time
- **Surface tension & surface free energy**
  evaluates the probing liquid from a pendant drop

• Lightweight, portable unit

• Small foot print : 55 x 90 mm

• Simple, accurate calibration routine

• Automatic droplet application

• Integrated camera : captures 15 images/sec

• Built-in pump : adjustable in 0.5 µl steps

• Easy to install - no hardware ! Runs on most PC's and laptops (USB)

• User-friendly software for Windows 98/ME/2000/XP (with dialogue in your own language)

Let the PGX measuring head X-ceed your X-pectations

Physical specifications

Dimensions
9 x 5.5 x 9 cm   (LxWxH)

Net Weight
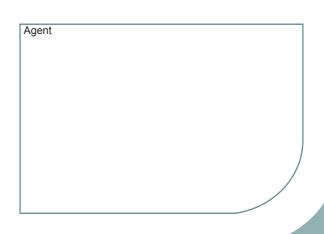400 grams

Standards

TAPPI T-458, ASTM D-724, D-5946

Applications

Printing - Agriculture - Paper - Detergents - Corona treatment - Coating - Pharmacy - Board - Inks - Flame treatment - Adhesion - Biomedicine - Wood - Oils - Surface sizing - Cleaning - Papermaking - Metals - Surfactants - Surface tension - Absorption - Cosmetics - Plastic - Water -Surface contamination - Wettability - Dentistry - Textile - Solvents - Surface energy
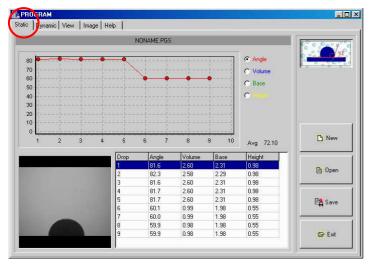
Cardboard
Non-wovens
Packaging
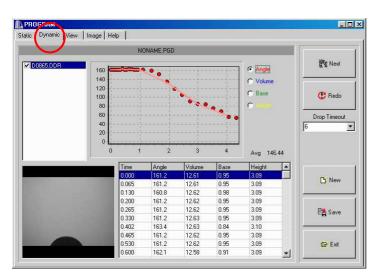Paper
Plastics
Printing Inks
Pulp
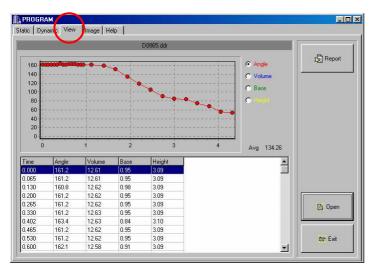EUROPE
Textile
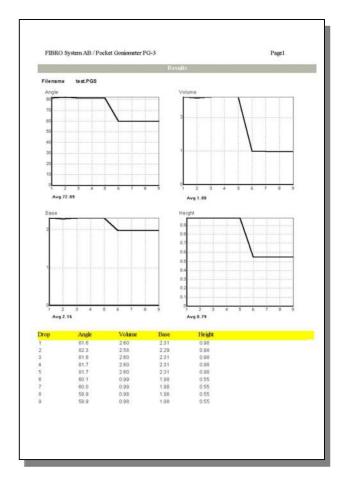
Agent

rycobel**group**

1. Static results from 5 + 4 droplets on two solid substrates
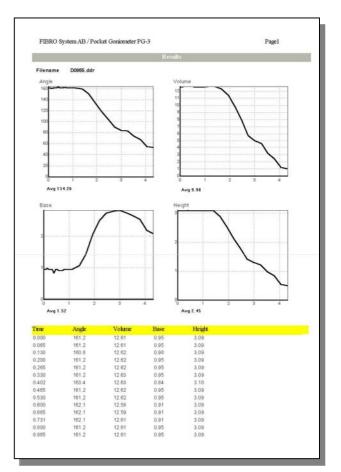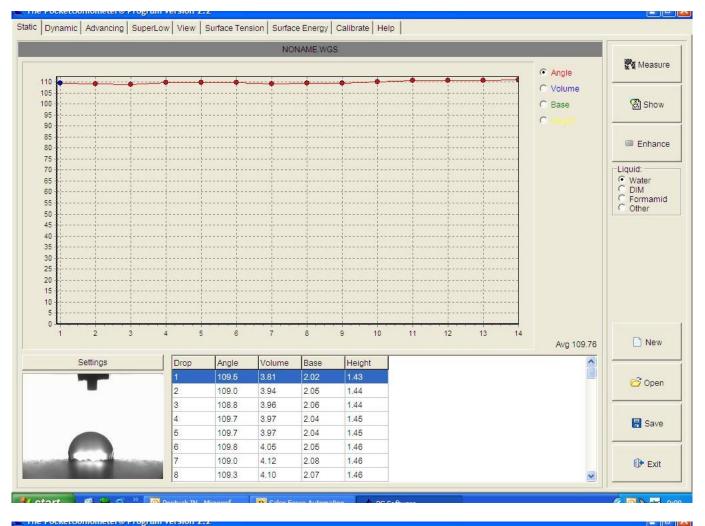
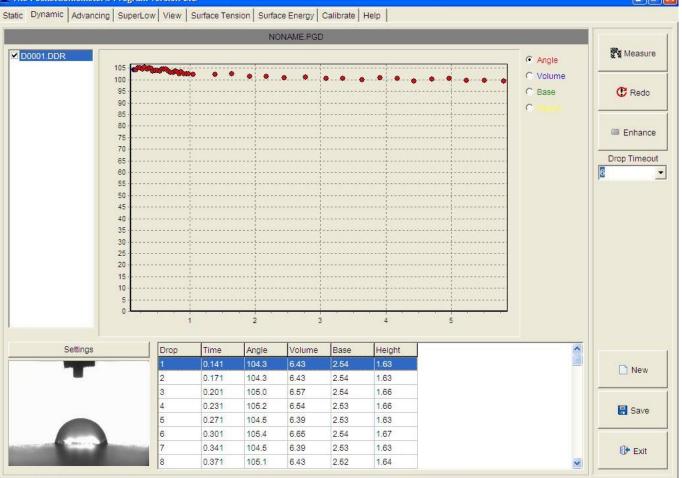

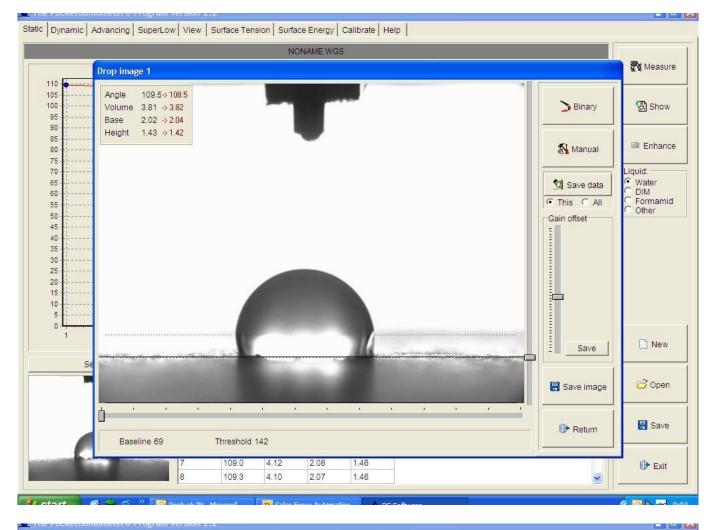2. Dynamic results from a droplet on an absorbent substrate

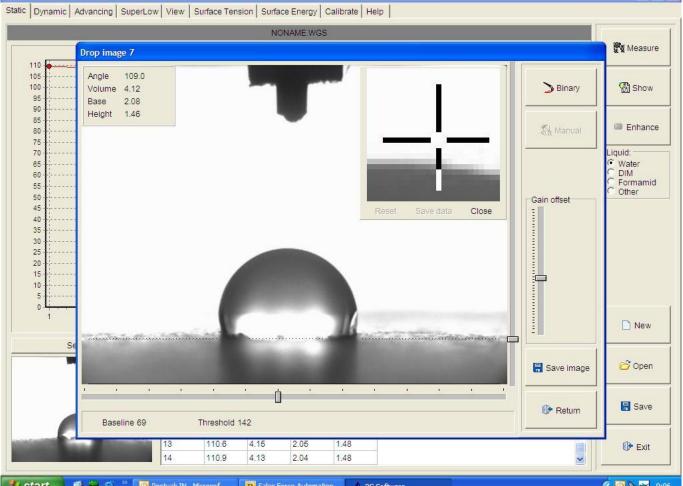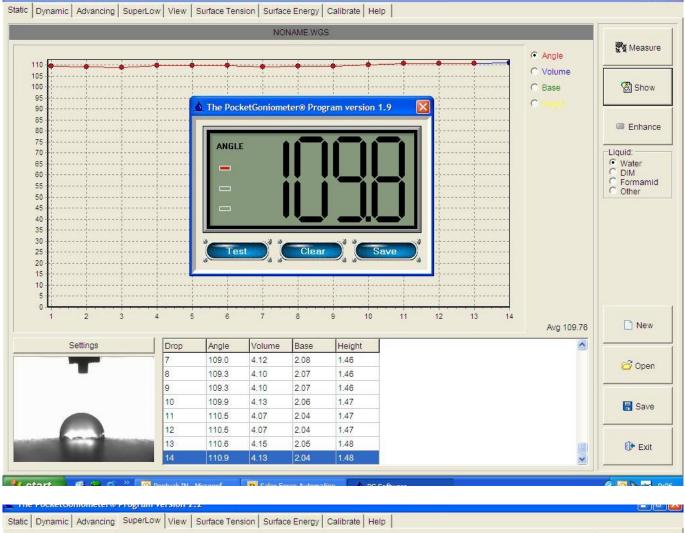3. Stored data can be retrieved by the Viewer or a spreadsheet

The PocketGoniometer® Program Version 2.2

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

NONAME.WGS

Measure
Show
Enhance

Liquid:
- Water
- DIM
- Formamid
- Other

Avg 109.76

New
Open
Save
Exit

Settings

Drop	Angle	Volume	Base	Height
1	109.5	3.81	2.02	1.43
2	109.0	3.94	2.05	1.44
3	108.8	3.96	2.06	1.44
4	109.7	3.97	2.04	1.45
5	109.7	3.97	2.04	1.45
6	109.8	4.05	2.05	1.46
7	109.0	4.12	2.08	1.46
8	109.3	4.10	2.07	1.46

Angle
Volume
Base

The PocketGoniometer® Program Version 2.2

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

NONAME.PGD

D0001.DDR

Measure
Redo
Enhance

Drop Timeout
6

Angle
Volume
Base

New
Save
Exit

Settings

Drop	Time	Angle	Volume	Base	Height
1	0.141	104.3	6.43	2.54	1.63
2	0.171	104.3	6.43	2.54	1.63
3	0.201	105.0	6.57	2.54	1.66
4	0.231	105.2	6.54	2.53	1.66
5	0.271	104.5	6.39	2.53	1.63
6	0.301	105.4	6.65	2.54	1.67
7	0.341	104.5	6.39	2.53	1.63
8	0.371	105.1	6.43	2.52	1.64

Screenshot 1 (top):

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

NONAME.WGS

- Angle
- Volume
- Base
- Height

The PocketGoniometer® Program version 1.9

ANGLE

109.8

Test   Clear   Save

Measure
Show
Enhance

Liquid:
- Water
- DIM
- Formamid
- Other

Avg 109.76

New
Open
Save
Exit

Settings

Drop	Angle	Volume	Base	Height
7	109.0	4.12	2.08	1.46
8	109.3	4.10	2.07	1.46
9	109.3	4.10	2.07	1.46
10	109.9	4.13	2.06	1.47
11	110.5	4.07	2.04	1.47
12	110.5	4.07	2.04	1.47
13	110.6	4.15	2.05	1.48
14	110.9	4.13	2.04	1.48

Screenshot 2 (bottom):

The PocketGoniometer® Program Version 2.2

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

NONAME.WGS

- Angle
- Volume
- Base
- Height

Measure
Show

Volume
4

Liquid:
- Water
- DIM
- Formamid
- Other

Avg 16.82

New
Open
Save
Exit

Settings

Drop	Angle	Volume	Base	Height
1	17.7	4.01	5.07	0.39
2	17.5	4.00	5.08	0.39
3	17.4	4.00	5.09	0.39
4	17.2	4.00	5.11	0.39
5	17.1	4.01	5.13	0.39
6	17.0	4.01	5.14	0.38
7	16.9	4.00	5.15	0.38
8	16.9	4.00	5.15	0.38

Thumbnails | Search result

Close

Dynamic Data Report

Filename Block light.PGD

Date: 2006-02-24

Angle

Volume

Base

Height

0% Page 1 of 2   PocketGoniometer® Program version 2.2

Thumbnails | Search result

Search text

Close

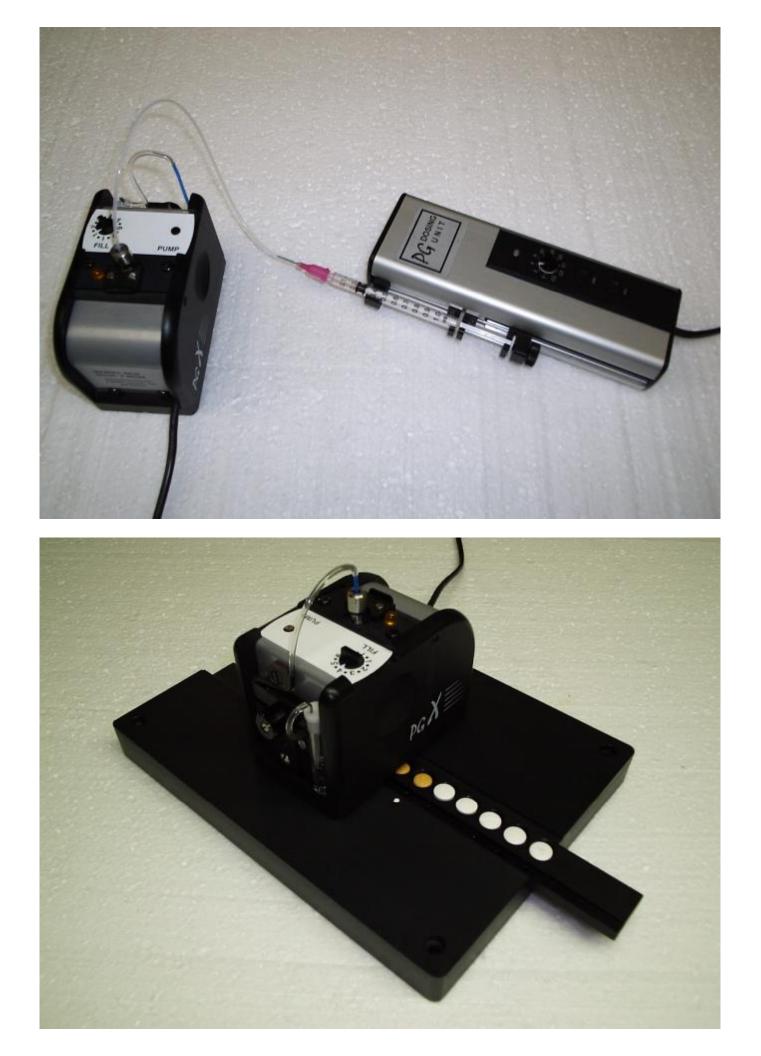| Time	Angle	Volume	Base	Height	Qty	
0.000	111.1	1.22	1.35	0.99	1	
0.100	108.6	1.24	1.40	0.98	1	
0.200	106.8	1.21	1.42	0.96	1	
0.300	103.8	1.24	1.47	0.94	1	
0.400	102.4	1.21	1.48	0.92	1	
0.500	100.9	1.21	1.51	0.91	1	
0.600	101.5	1.18	1.48	0.91	1	
0.700	101.0	1.16	1.48	0.90	1	
0.800	100.0	1.19	1.51	0.90	1	
0.900	99.6	1.16	1.51	0.89	1	
1.000	98.0	1.16	1.53	0.88	1	
2.000	96.5	1.09	1.52	0.85	1	
3.000	95.2	1.07	1.53	0.84	1	

0% Page 1 of 2   PocketGoniometer® Program version 2.2

The PocketGoniometer® Program Version 2.2

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

Threshold | Scale | Result

LED Intensity: 140

Start

Insert full Sphere and click start to calibrate.

start

The PocketGoniometer® Program Version 2.2

Static | Dynamic | Advancing | SuperLow | View | Surface Tension | Surface Energy | Calibrate | Help

Threshold | Scale | Result

Tilt Angle:0.2 Degrees
Threshold: 140

Next

Insert semi-sphere!

Height 0.94
Base 1.99
Volume 1.90
Angle 86.7

start