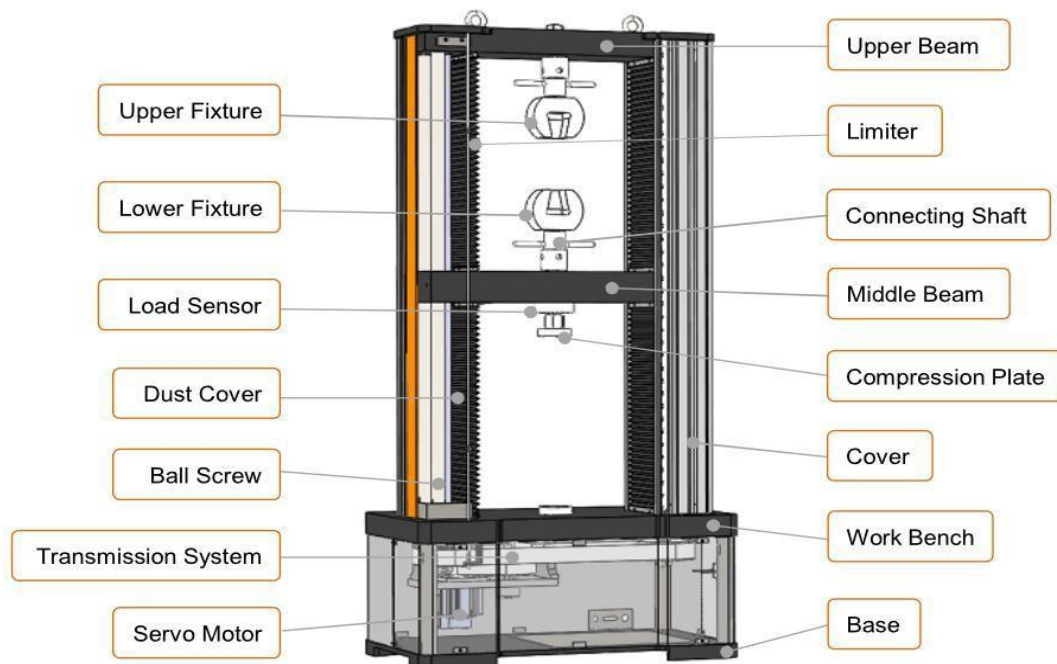


Computerized Servo Control Universal Testing Machine



It is applicable for wide range of material for tension, compression, bending, shear and low cycle test. Suitable for metal, rubber, plastic, spring, textile, and components testing. It is widely used in the corresponding industries, research and development, test institutes and training centers etc.

Standard accordance to ASTM A370, ASTM E4, ASTM E8, ASTM E9, ISO 6892, ISO 7438, ISO 7500-1, EN 10002-4, GB/T 228-2002, GB 16491-2008, HGT 3844-2008 QBT 11130-1991, GB 13-22-1991, HGT 3849-2008, GB 6349-1986, GB/T 1040.2-2006, ASTM C165, EN 826, EN 1606, EN 1607, EN 12430 etc.



Machine Structure:

Mainly composed by the base, upper middle lower beams, connecting light rod and other components. The beam adopting cast steel ZG270-500. Adopting high strength light road to fix the upper beam and working table, to make the high rigid structure frame. Middle beam to guide with the guide light rod, to make the middle beam running with high precision.

Transmission System:

Planetary reducer, belts and ball screws is consist of the transmission system to make transmission more accuracy and stable. High grade no gap ball screws (Raceway grinding by German technology) to make the beam moving more stable and effectively reduces the equipment gap.

Servo Motor and Controller:

JAPAN imported Panasonic AC servo motor and controller ensure stability of the machine and strong power and also make adjustment according to the electricity system order to meet the machine close loop control requirement.

Load Sensor:


High precision dual direction sensor, high accuracy, stable property can meet batch test requirement.

Specification:



Brand	ECO			
Model	EI-UT50	EI-UT100	EI-UT200	EI-UT300
Capacity	50kN	100kN	200kN	300kN
Control System	Adopting servo systems and servo motor, with full-digital Measure control system			
Measure Range of Testing Force	0.2% ~ 100% full scale			
Accuracy of Force	±0.5%			
Accuracy of Deformation Measure	±1%			
Discrimination of Displacement	0.001mm			
Accuracy of Speed	±1%			





Test Speed	0.01~ 500mm/min			
Vertical Test Space	600mm			
Width Test Space	420mm	470mm	600mm	
Dimension	850 x 660 x 2200mm		1100x770x2580	
Weight (Approx)	500kg	700kg	1600kg	2000kg
Rate Voltage	240V, 50Hz, 1.5kW	415V, 50Hz, 2.0kW	415V, 50Hz, 3.0kW	415V, 50Hz, 5.0kW

System Configuration:

Item	Quantity	Remarks	Picture
High Strength Main Unit	1 set	Two column	
Synchronous Deceleration System	1 suit		
High Precision Ball Screw	2 pcs		
Panasonic AC Servo Driver and Motor	1 pc		

Test Control System:

Celtron, US High Precision Load Sensor	1 set	Low Profile Type	
Branded Desktop PC	1 set	Microsoft Window Latest Version	
Professional Software	1 suit	TCP V5.09	

Handheld Controller	1 suit		
Fixture:			
Tensile Grips Fixture: (Round Jaw & Flat Jaw)	Each 1 set	Flat Jaw: 0 - 7mm, 7 - 14mm Round Jaw: 9 - 14mm, 14 - 21mm	
Compression Fixture	1 suit	Ø100mm	
Optional: Electronic Extensometer	1 suit		
Optional: Protection Door	1 suit		

Software Feature:

1. The software description about desktop computer type servo tensile testing machine

- a. Function of standard modular: provide users with the necessary applications to the test, covering GB, ASTM, DIN, JIS BS.... And other testing standard specification.
- b. Tested product information: provide users with the data to set about the products, one time to input and re-use permanently for improving the accuracy, the data can be corrected by the formula automatically.
- c. Dual-report editor: provide users with the reported format that users choose (testing program add EXCEL reported format, Extend the previous single pattern of statements)
- d. The data's unit of length and force can be exchanged, unit of force is T, Kg, N, kN, g, lb, unit of length is mm, cm, inch.
- e. Auto-optimization of graphic scale, display the best measurement of graphics. It can test the moving exchange in graphics; it has the load –displacement, load – time, displacement – time, and stress – strain load – 2 points extending maps and lots of graph compared.

- f. Test results can be export to output in EXCEL, WORD & PDF format.
- g. Testing result can be automatically preserved or manual preserved, after the test, it can automatically calculate the most strength, up and down yield strength, loop method, best method, non-proportional extended strength, tensile strength, compressive strength, tensile strength at any point, constant load extension, elastic modulus, rate of elongation, peel range of maximum force, minimum force, average force, total energy, bending modulus, x% load in break displacement, load x% in break displacement and so on. The test data can be stored in any disk.
- h. Software has a capability that can output the before data.

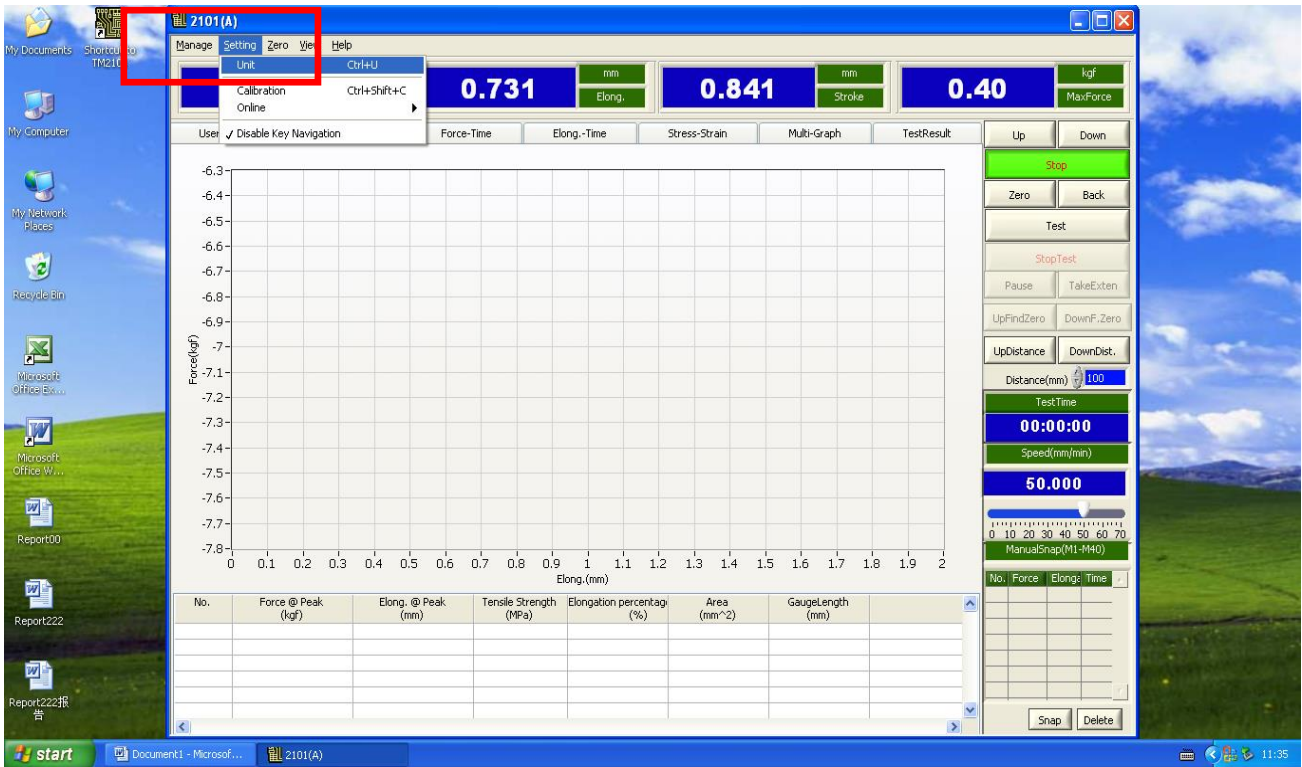
2. Items can be tested in the Desktop computer type servo tensile testing machine

Common items: (Display data and calculation)

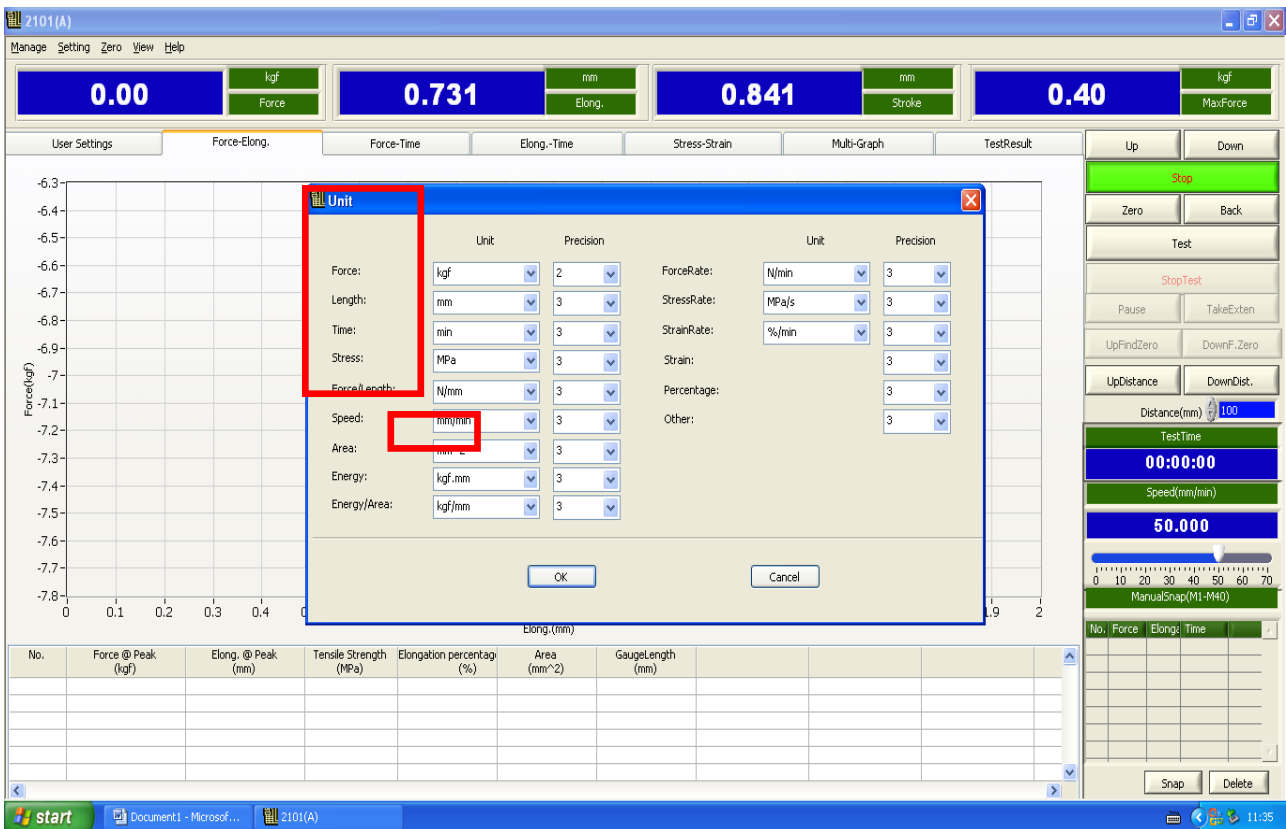
- Tensile stress
- Tensile strength
- Rate of elongation at break
- Fixed stress
- Rate of stress at break
- Stress Strength
- Tear strength
- The value of force at any point
- Rate of elongation at any point
- Pull-out strength
- Force of adhesion and the peak of force

Computer Servo Control Material Testing Machine Software Operation Interface:

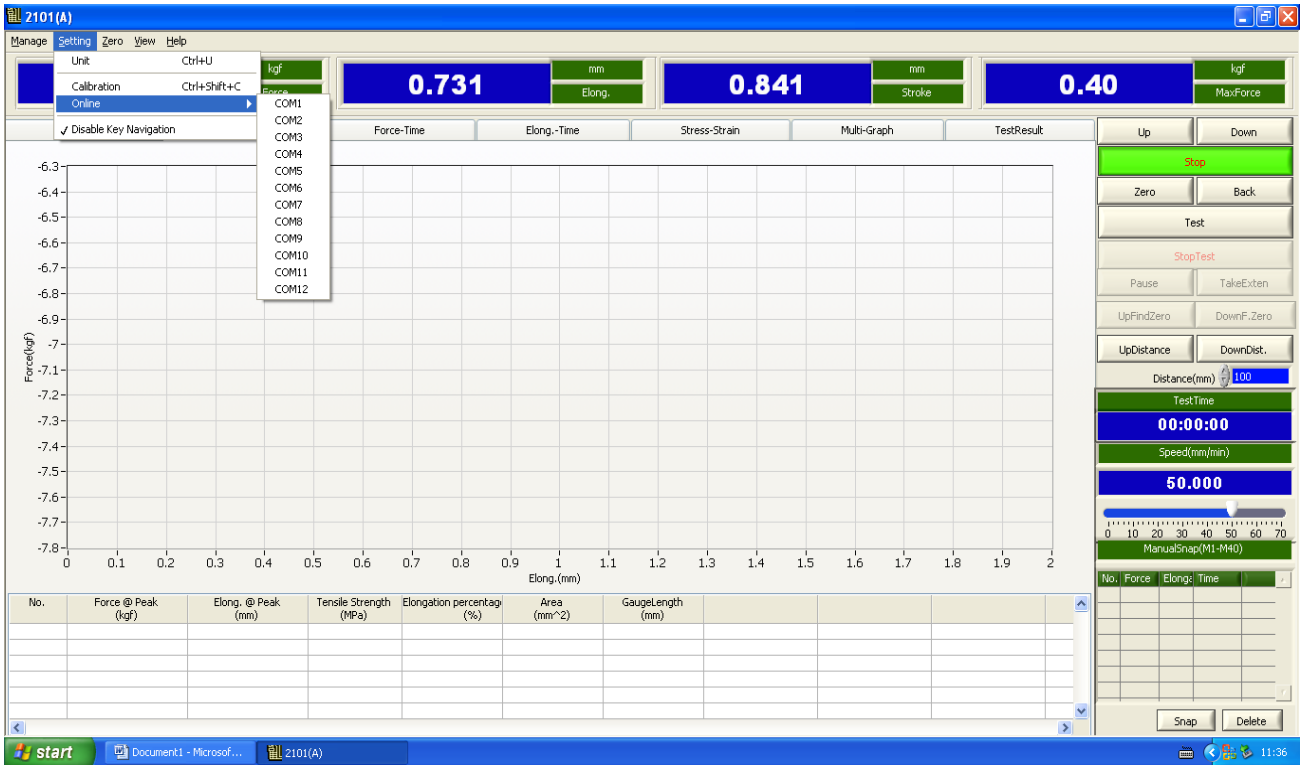
1. Choose you need units, setting==>unit



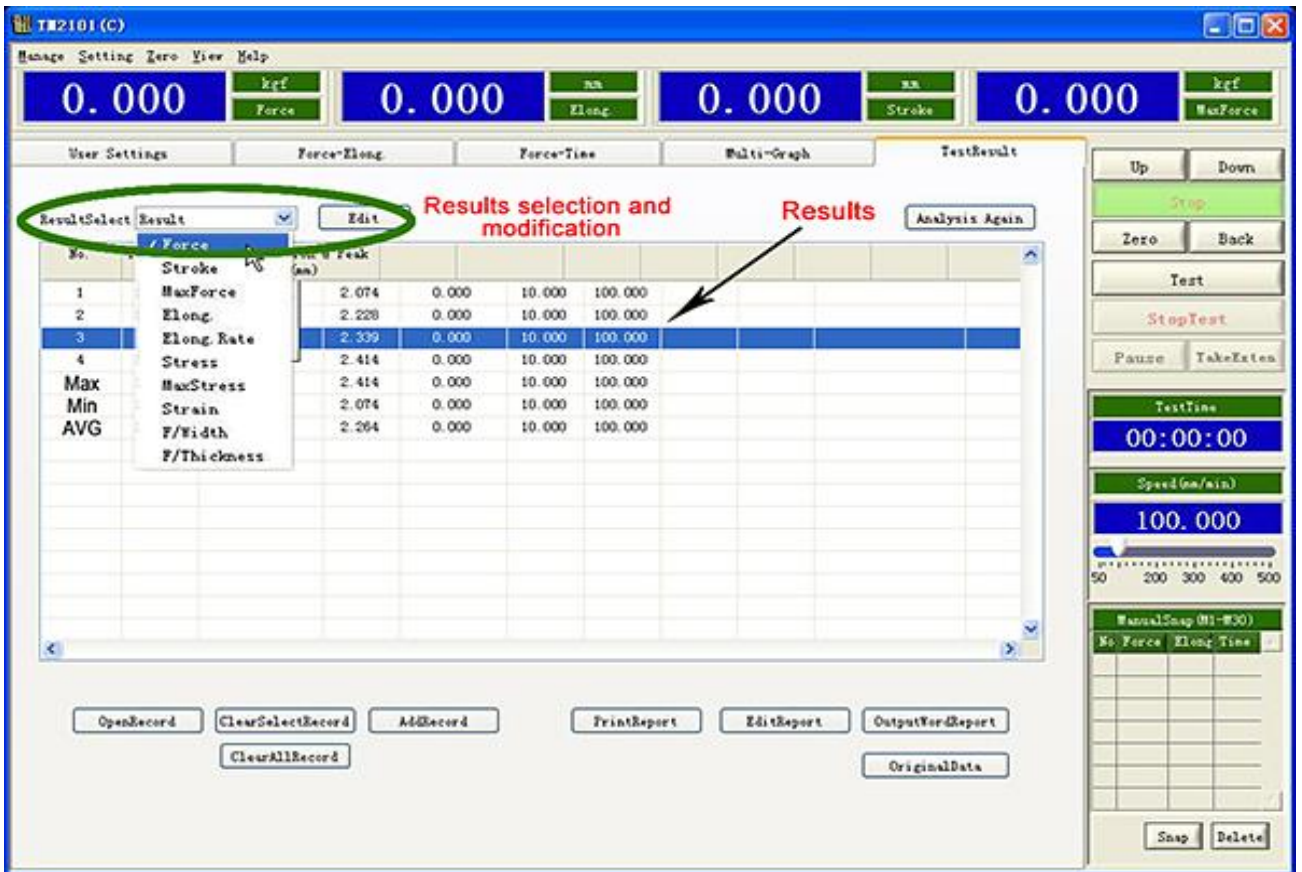
2. There are so many units, just choose you need.



3. Connect computer and software online. Setting==>Online==>COM1 or COM2..., after it shows success connected.



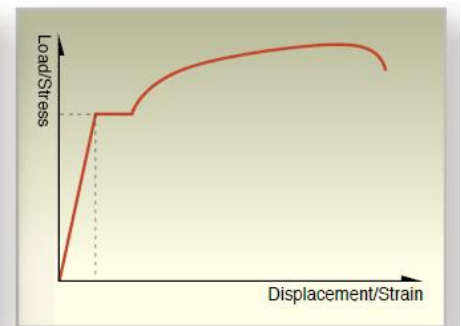
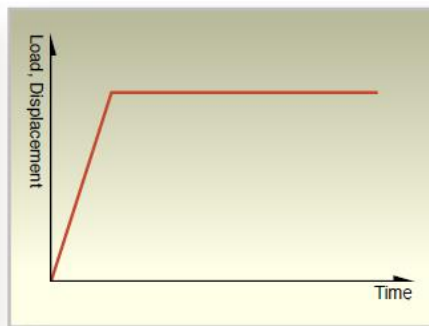
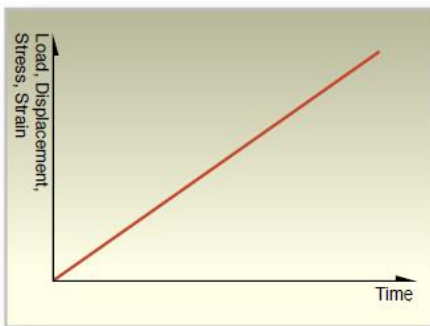
4. Test Results



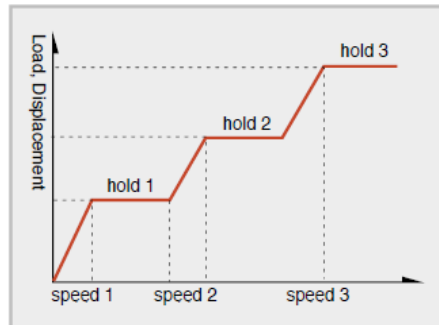
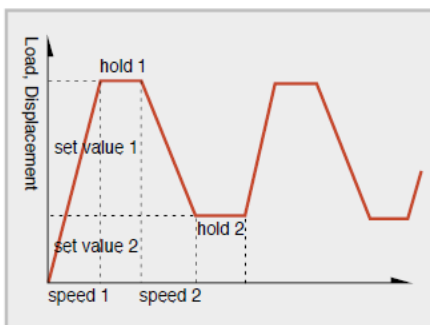
5. Computer servo control material testing machine test curve



STANDARD CONTROL MODES:



SPECIAL CONTROL MODES (OPTIONAL):



Sample Report: Steel Wire

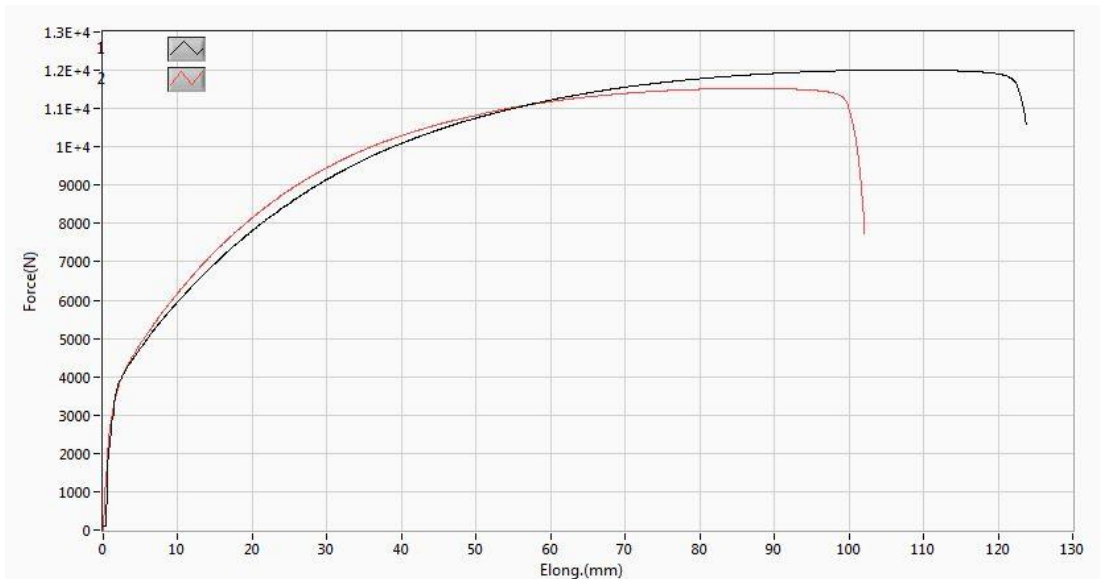
ECO Instrument

Address: 215, Jalan S2C9, Seksyen C,
GreenTechnology Park, Seremban 2,
70300 Seremban, Negeri Sembilan. Malaysia.
Tel: +606-6030 951 Fax: +06-6030 952

Material Testing Report

Test No : 1307001
Lot No : 324890
Operator : Mohd.
Remarks : Good.

Test Date : 07-02-2020
Material : Steel Wire
Temperature : 26 C



No.	Force @ Peak (N)	Elong. @ Peak (mm)	Tensile Strength (MPa)	Tensile Strength (%)	Area (mm ²)	Gauge Length (mm)
1	12008.243	105.642	3821.847	422.567	3.142	25.000
2	11528.698	87.232	3669.223	348.929	3.142	25.000
Maximum	12008.243	105.642	3821.847	422.567	3.142	25.000
Minimum	11528.698	87.232	3669.223	348.929	3.142	25.000
Mean	11768.470	96.437	3745.535	385.748	3.142	25.000

Tested By:

Approved By:



90° peel clamp



180° peel clamp



360° peel clamp



Cloth clamp



Cloth wacelike clamp



Sewing thread clamp



Bold line clamp



Metal clamp



Strong force clamp



Deconvolution strength clar



Initial adhesion clamp



Skein clamp



Compression plate



ASTM D1894
Friction clamp



Three-jaws clamp



Pneumatic clamp



Pneumatic clamp



Three-point bending clamp



Yarn clamp



Antenna clamp



Steel wire clamp



Universal pliers clamp



Rubber reflexed clamp



Helical metal clamp



Braid clamp