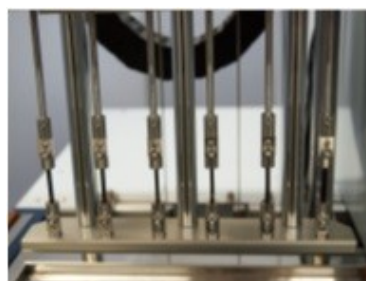




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No.223 Gehman Stiffness Tester Model **GS-2**



Test station

Note: PC shown is option. PC table shown is not provided.

■ APPLICATION

Gehman Stiffness Tester evaluates stiffness of rubber at low temperature according to JIS K 6261-3, Low temperature stiffening (Gehman test). The testing operation is automatic (except installation of specimens and lifting of test station) and specimen is twisted by means of a wire of known torque at programmed test temperature. The angle of twist produced at this time is detected and is sent to the personal computer for data processing.

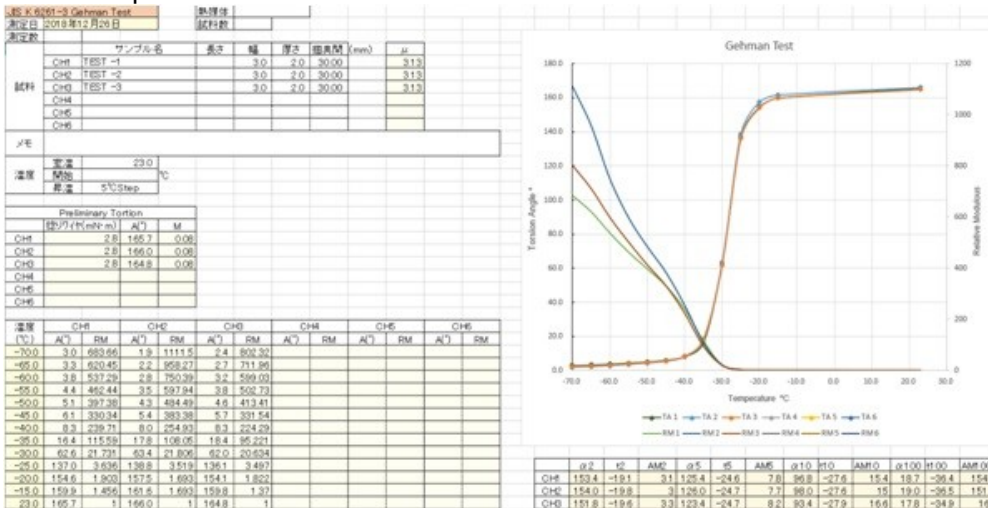
FEATURES

- Torsional stiffness of 6 specimens can be measured simultaneously.
- Since the specimens are arranged in a horizontal row, the work of mounting the specimens can be performed efficiently.
- Twist angle is detected with a top-mounted encoder. Therefore, torsion wire can be installed without bending.
- By using a stepper motor for twist drive, excitation lock is possible and wire attachment can be performed easily.
- Test station can move vertically and horizontally, making it easy to maintain the refrigerant tank
- Basic test conditions can be entered on the touch screen.
- The refrigerant tank is installed at just nice height that makes it easy to place a collection container when draining refrigerant.
- Measurement data is output to spread sheet application worksheet with graph drawing function via RS-232C. (Note: Spread sheet application is not provided)
- Measurement data can be sent to spread sheet application worksheet in batch after the test.

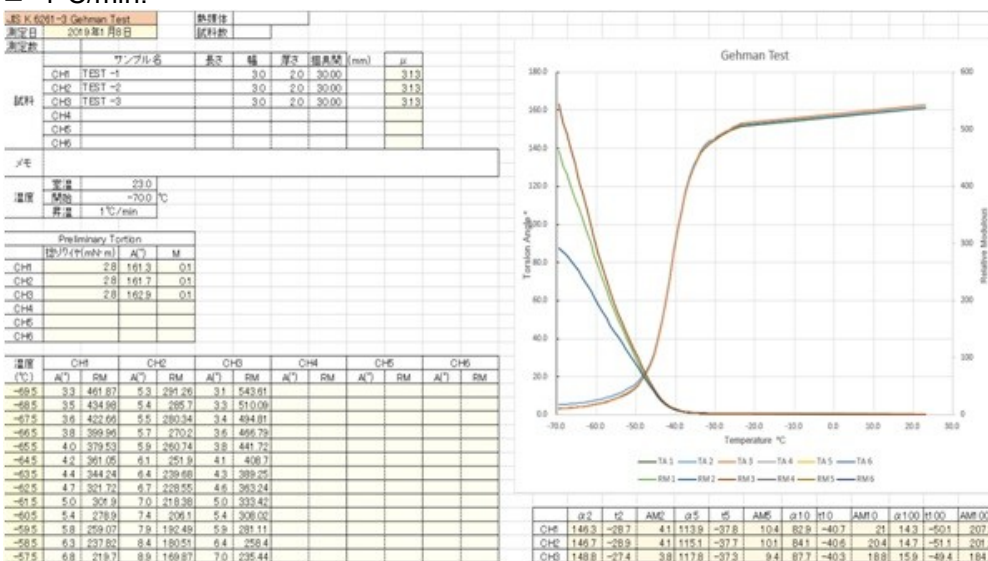
Measurement results example:

(Note: Spread sheet application is not provided)

5°C steps



1°C/min.



■ SPECIFICATIONS

Model	GS-2
Number of specimen	Max. 6 specimens
Dimensions of specimen	3(width) x 2(thickness) x 40(length) mm
Specimen grips span	25 ± 3mm
Test temperature range	-70°C to +23°C
Temperature sensor	Pt100 (Class B)
Overheat protection	K thermocouple (Class 0.75) Overheat protection unit (Independent from temperature control) Arbitrary setting range: 0 to 200°C (Initial setting: 40°C)
Cooling system	Air cooling type binary refrigerating system (Refrigerant: HFC-404A, HFC-23)
Cooling medium (Heat conducting material)	Ethanol (Capacity: 18L) Note: Ethanol is not provided as a standard feature
Temperature control	<ul style="list-style-type: none"> ■ 5°C steps, constant temperature rising ■ 1°C/min. continuous temperature rising
Temperature resolution	0.1°C
Temperature distribution	±1.0°C
Displacement measurement	Top mount type encoder
Twisting system	Stepper motor
Twist angle	180deg.
Twist angle detection	Least count 0.1deg.
Kinds of wire	3 kinds of torsion constant <ul style="list-style-type: none"> ■ H ■ M ■ L
Operation of measurement	<p><Manually operated></p> <ul style="list-style-type: none"> ■ Installation of specimens ■ Lifting of test station... Manually operated <p><Automatically operated></p> <ul style="list-style-type: none"> ■ Twisting of specimens ■ Acquisition of twist angle ■ Temperature control
Data processing software	Transfer the data to spreadsheet application Note: Spreadsheet application is not provided as standard
Data processing parameters	<ul style="list-style-type: none"> ■ Apparent torsion modulus ■ Relative modulus ■ Temperature of relative modulus
Operation panel	5.7" color touch-screen
Interface	RS-232C
Power requirement	Three-phase, AC200V, 50Hz or 60Hz, 6.9kVA
Dimensions	Main unit: W630 x D850 x H1570mm (H2000mm when test station is lift up position)
Weight	Approx. 310kg
Related standards	ISO 1432 JIS K 6261-3

■ STANDARD ACCESSORIES & OPTIONS

● Standard ○ Option

	Name	Model (Part No.)	Photo	GS-1
1	Wire, H	7204822	-----	● x1
2	Wire, M	7204821	-----	● x1
3	Wire, L	7204820	-----	● x1
4	Personal computer	-----	-----	○
5	RS-232C cable	RS-1	-----	○
6	RS-232C cable with USB conversion connector	RS-2	-----	○
7	Wire inspection jig	GS-J2	-----	○

Specifications are subject to change without notice.

 TOYOSEIKI

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