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## MODEL TM-2535/TM-2536

# GEHMAN TORSION TESTER

### Outline

Rubber loses resiliency as temperature goes down. The frozen rubber can't keep its essential characteristics under the temperature below Glass Transition Point (Tg).

In fact, rubber applications under severe environments such as vehicle tires in the frozen area and aircraft components in the stratosphere are seriously affected.

It is of vital importance for rubber applicants to test the low-temperature characteristics of vulcanized rubber.

The Gehman torsion test is one of the most popular test methods of low temperature tests for vulcanized or thermoplastic rubber and is also adopted in JIS K6261-3 and ISO 1432.

The Models TM-2535 and TM-2536 are based on the performance requirements specified by JIS K6261-3 and realize the ease of use with a fully automatic measurement and data processing system.



MODEL TM-2535



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## Feature

- It can measure up to 6 test pieces, and as recommended by JIS K6261-3, it can simultaneously test test-samples with known low-temperature torsional rigidity, so you can obtain highly reliable data.
- Temperature-apparent torsional modulus of the rigidity curve is also displayed and recorded in addition to the temperature-twist angle curve.
- The computer calculates not only relative modulus but also glass transition temperature (T<sub>g</sub>) which is an important measure of low-temperature characteristics of rubber.

## Specification

Model	TM-2535	TM-2536
Reference Standard	JIS K6261-3, ISO 1432	
Cooling Method	Refrigerator	Dry Ice
Number of Samples	6 (simultaneous measurement)	
Temp. Range	-70°C to RT(23°C±2°C)	
Temp. Rising	Every 5°C (kept at each set temp. for 5 min.)	
Temp. Control	PID controlled digital temperature controller, sensor PT100Ω	
Heat Transfer Medium	Ethanol	
Torsion Angle Setting	Rotary encoders, minimum angle display: 0.36°	
Data Processing	Data (glass transition temp. T <sub>g</sub> ) display Graph (temp. – torsion angle curve, temp. – apparent torsion modulus curve) Filing (data, test conditions, PID setting) Release of torsion wire	
Safety Device	leakage breaker, overheat protector	
Power Supply	200VAC, 3 phases, 30A, 50/60Hz (100VAC for PC) or specified voltage	200VAC, 3 phases, 10A, 50/60Hz (100VAC for PC) or specified voltage
Outer Dimensions	(W)520 x (D)780 x (H)1505 mm	(W)520 x (D)780 x (H)880 mm

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<Manufacturer>

**Ueshima**

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