Digital Shore Hardness Tester

Introduction:

Durometer are used for determining the material hardness of rubber, plastic and other rubber like substance such as neoprene, silicone, vinyl, also be used for soft plastics, felt, leather and similar materials.

Shore hardness value in the range from 0 to 100. Maximum penetration for each scale is 2.5 mm. This value corresponds to minimum Shore hardness of 0 and the Shore hardness 100 corresponds to maximum penetrated.

Feature:

- Microcomputer LSI circuit and dwell time base to offer high accuracy measurement & fast measuring time.
- Connecting to PC: The measured value is automatic shown on monitor via USB data cable.
- Test stand capable of applying the specimen to the indenter with sufficient recommended force that allows accurate and repeatable hardness tests to increased stability.
- Automatically switch off after about 2 minutes.
- Portable device measurements at the workplace.

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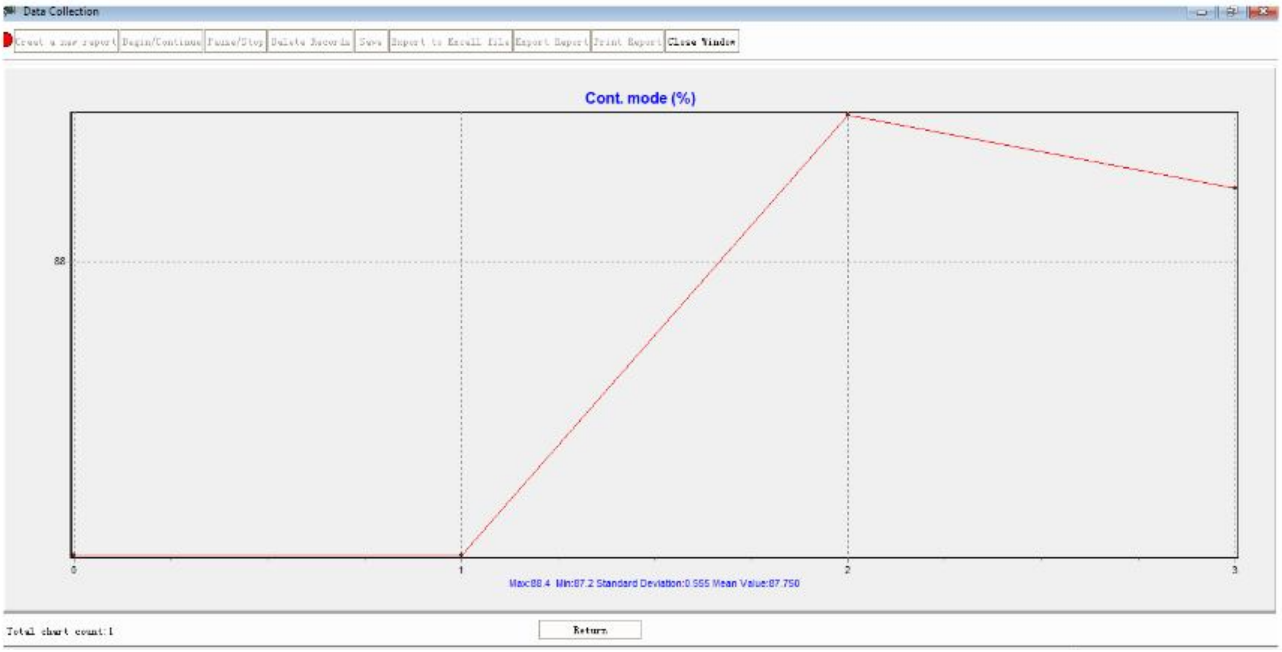
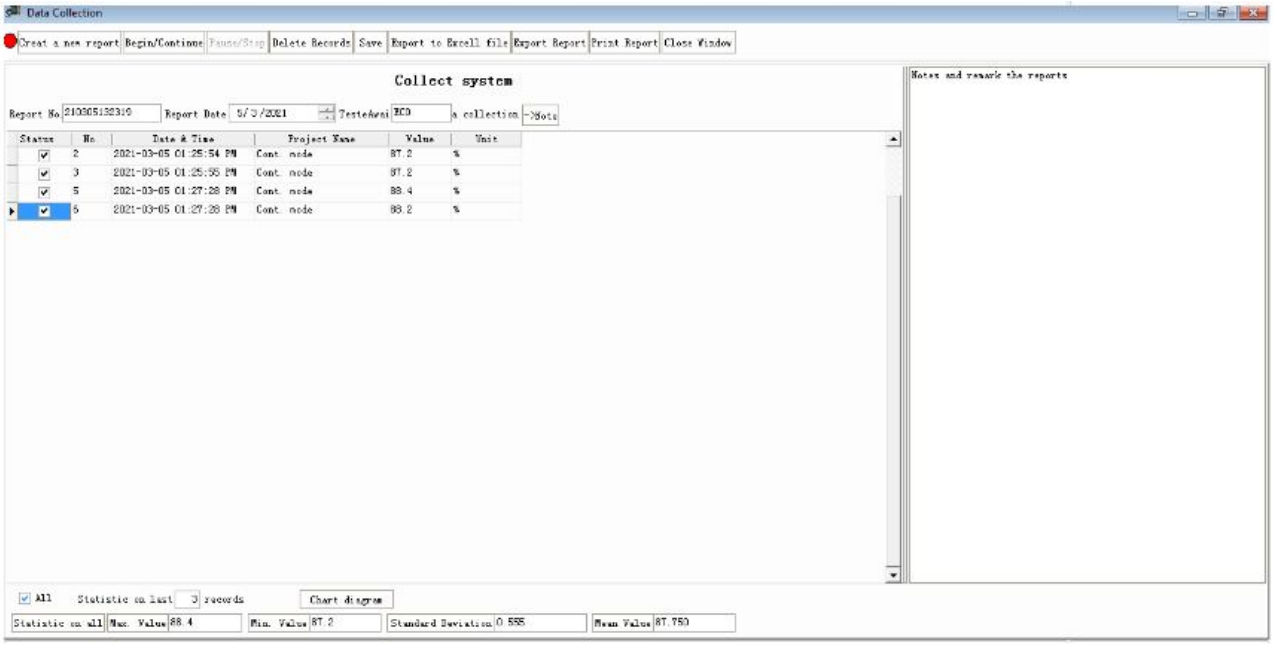
Test Data Report:





Typical Samples and Requirements:

Shore A	Soft vulcanized rubber, plastic and elastomers, Eraser, Bicycle seat, Floor mat, Shoe sole, Rubber band, Polyurethane foam, Nylon webbing.
Shore D	Hard rubber and plastic such as thermo plastic, flooring and bowling balls, wooden table top, HDPE, Vinyl-plate.
Shore O	Sponge, Cellular rubber, Foam rubber, Silicone, Gel-like materials
Shore OO	Light foams, Sponge rubber gels and Animal tissue

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Specifications:

Model	A	D	O	OO
Test Value	HA	HD	HO	HOO
Indenter	D 0.79 Flat Cone Point, 35°	R 0.1 Sharp Cone Point, 30°	R 1.2 Spherical Radius	R 1.2 Spherical Radius
Spring Force	821gf	4,533gf	821gf	113.3gf
Test Range	10 ~ 90 Hardness unit			
Measurements Display	Actual hardness, Maximum value, Average value			
Accuracy	<±1 Hardness unit			
Resolution	0.1 Hardness unit			
Software & Data Cable	Included			
Interface	USB			
Other Function	Auto shut down, Low battery indicate			
Power	4 x AAA batteries			
Dimension	165 x 66 x 27mm without test stand			
Standard Accessories	Test Block, Operation Manual, carrying case **Note:** This test block is not the real hardness test sample. It is only an imitation. Just place the block onto a flat glass, then place the point of indenter into the hole of the block when take measurements			
Optional: Test Stand	EI-1A: 1 kg + 0.1 kg for Shore A EI-5D: 5 kg + 0.5 kg for Shore D			
Standard	ISO 7619, ISO 868, DIN 53505, ASTM D2240, JIS K7215			

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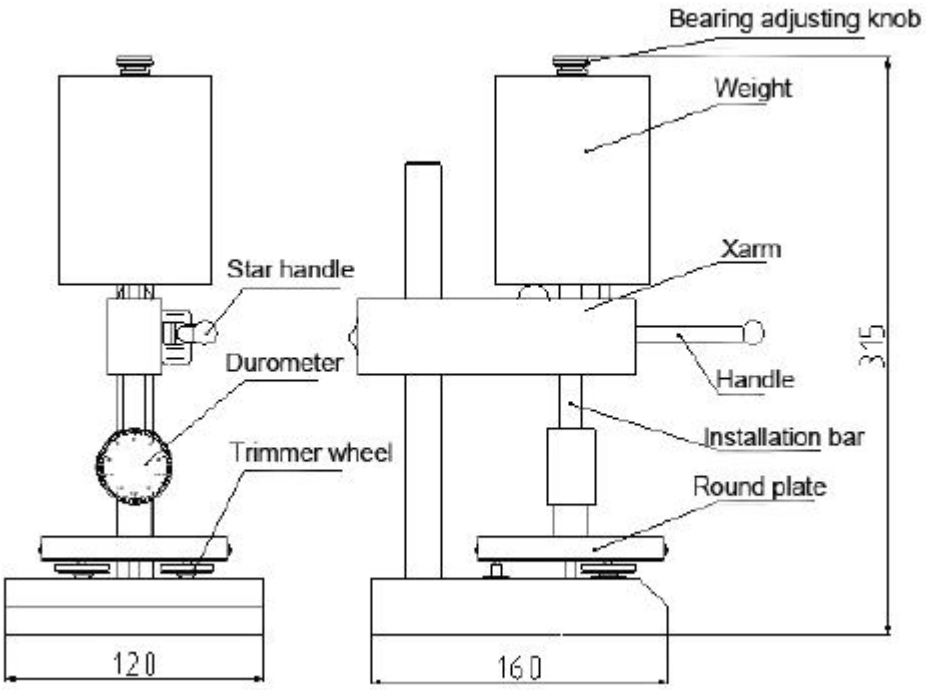
EI-1A & EI-5D Test Stand:



Method of hardness test for Rubber and Plastic sample with test stand:

Put the sample on circular platform, loosen the Star handle in X-arm, adjust the height of X-arm until left 5mm distance between the indenter and the tested sample.

Pull down handle slightly and make the indenter penetrate with the sample, and reading the test value in 1 second. In order to improve the accuracy of measuring, and testing different positions apart at least 10mm for five times, take the average measurement.

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