SK DUROMETER

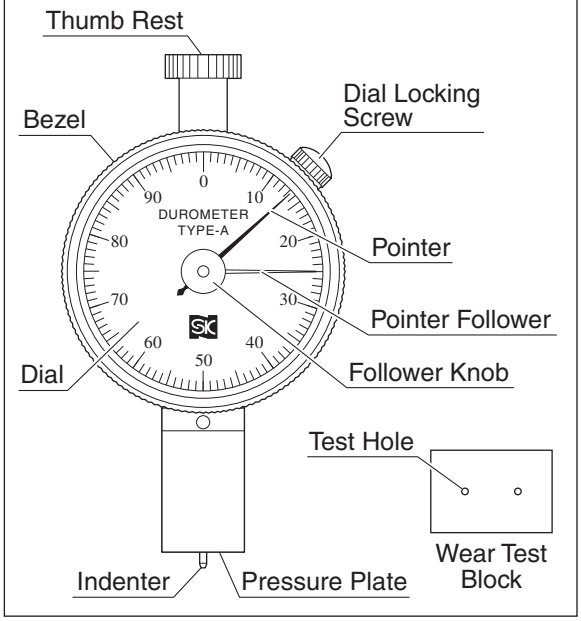
INSTRUCTION MANUAL

Model No. : ADM-A / ADM-D / ADM-E

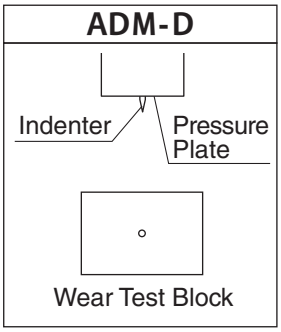
Thank you for purchasing the Niigata Seiki Durometer.
Please read this manual thoroughly before use for proper operation.

PARTS IDENTIFICATION

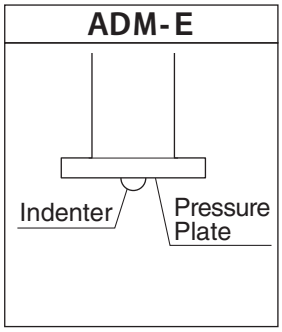
ADM-A



ADM-D



ADM-E



STANDARDS

This product is compliant with the following standards with regards to Indenter shape, size, dimensions, and spring force.

JIS K 6253

『Rubber, vulcanized or thermoplastic - Determination of hardness』

ISO 7619(E)

『Rubber-Determination of indentation hardness by means of pocket hardness meters』

APPLICATIONS

・Hardness test for rubber and plastic.

SPECIFICATIONS

Model No.	ADM-E	ADM-A	ADM-D
Hardness Range	Below A20	A20～A90	Above A90
Sample Material	Soft Rubber, Eraser, Roll Film, Low Hardness Elastomer	Rubber, Soft Plastic, Tire, Med. Hardness Elastomer	Hard Rubber, Plastic, Ebonite, High Hardness Elastomer
Sample Thickness	10.0mm or greater	6.0mm or greater	6.0mm or greater
Indicator Accuracy	±1 Scale Resolution		
Indenter Material	HM35(SKH55)		
Weight	approx. 170g	approx. 160g	approx. 160g
Accessories	—	Wear Test Block	

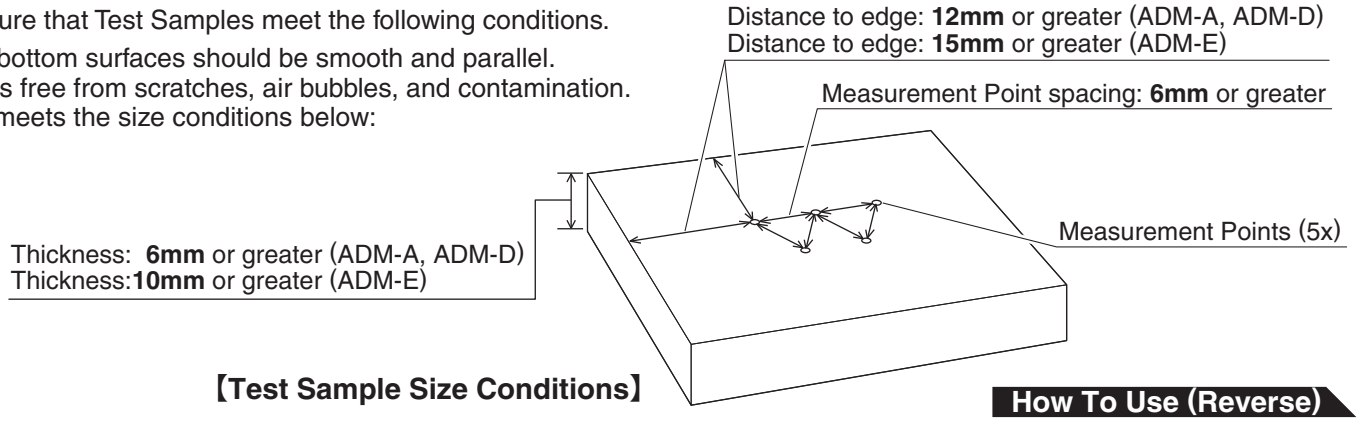
CAUTION

- This product is to be used as Hardness Measuring Instrument for plastic and rubber. Please use only as directed.
- Only use within applicable measuring range for each model. Use beyond specified range may cause errors or damage to instrument.
- Never press indenter against hard surface, such as glass or metal, with the exception of testing using the Wear Test Block.
- Do not apply force greater than 2-3 times force specified by the relevant standards (JIS, ASTM, ISO, DIN, etc.) Excessive force may affect accuracy and cause damage to the instrument.
- Do not apply lateral pressure or move the indenter when in contact with test sample.
- Instrument is designed for using in vertical orientation with downward pressure. Use in horizontal or upward direction will result in inaccurate measurements.
- Please Note – Measurements taken by this instrument will vary from those taken using a different measurement standard, such as JIS K6301, etc.
- This is a precision measurement instrument, Do not drop or apply excessive force as it may result in inaccuracy.
- Do not use in wet or oily locations.
- Do not disassemble or modify.
- Do not use organic solvents (thinner, benzine, etc.) to clean.

TEST SAMPLES

Please insure that Test Samples meet the following conditions.

- Top and bottom surfaces should be smooth and parallel.
- Sample is free from scratches, air bubbles, and contamination.
- Sample meets the size conditions below:



【Test Sample Size Conditions】

How To Use (Reverse)

HOW TO USE

① Loosen the Dial Locking Screw and rotate the Bezel to align the Pointer with "0". Re-tighten the Dial Locking Screw.

② Place the test sample on a flat, rigid surface.

③ Determine the locations for applying the indenter for test. Locations should satisfy the two conditions below: (Figure:1)

(1) More than 12mm from edge of test sample. (ADM-A、ADM-D) More than 15mm from edge of test sample. (ADM-E)

(2) Separated by at least 6mm from adjacent measurement points.

④ Hold the Durometer so that the two conditions below are satisfied: (Figure:2)

(1) The Pressure Plate is parallel to test surface.

(2) The indenter body is perpendicular to test surface.

⑤ Without causing shock, gradually press the indenter into the surface until the Pressure Plate is against the surface of he test piece.

⑥ When the Pressure Plate is in contact with the surface, wait following period before taking a reading:

- Vulcanized rubber: after 3 seconds
- Thermoplastic rubber: after 15 seconds

⑦ Measurement is median value of the five measurement values taken at different locations

※ "Median" is determined by arranging values in ascending order, and the median is the value in the center.

USING THE POINTER FOLLOWER

① Loosen the Dial Locking Screw and rotate the Bezel to align the Pointer with "0". Re-tighten the Dial Locking Screw.

② Rotate the Follower Knob counterclockwise, moving the Follower to the right hand side of the Pointer. (Figure:3)

③ Take measurement. Maximum position of pointer will be records by the Pointer Follower.

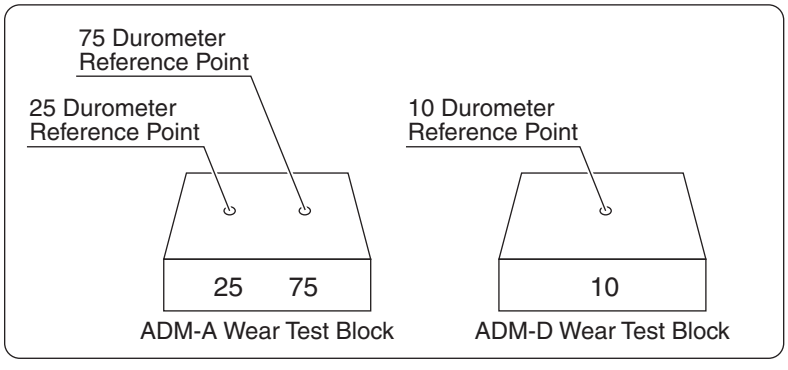
INDENTER WEAR TEST (ADM-A、ADM-D)

With continued use, the indenter will wear. Check the wear regularly using the following procedure and take the extent of wear into account when taking measurements.

① Loosen the Dial Locking Screw and rotate the Bezel to align the Pointer with "0". Re-tighten the Dial Locking Screw.

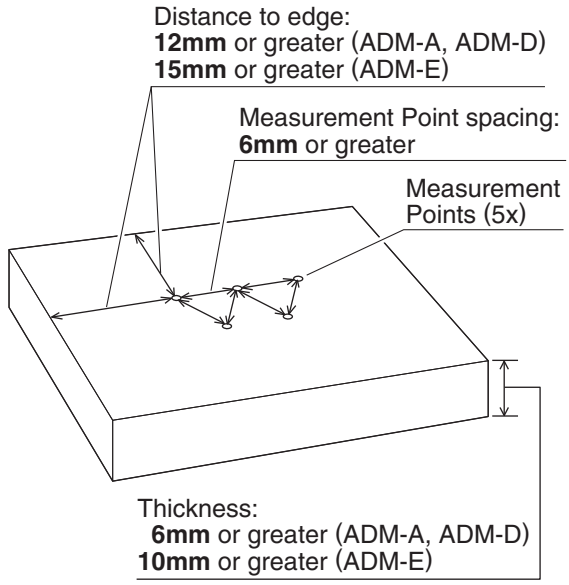
② Place the supplied Wear Test Block on a flat, rigid surface

③ Put the indenter into the test hole and press gradually to avoid damage to the Wear Test Block. The gauge will read the number indicated below for indenter with no wear.

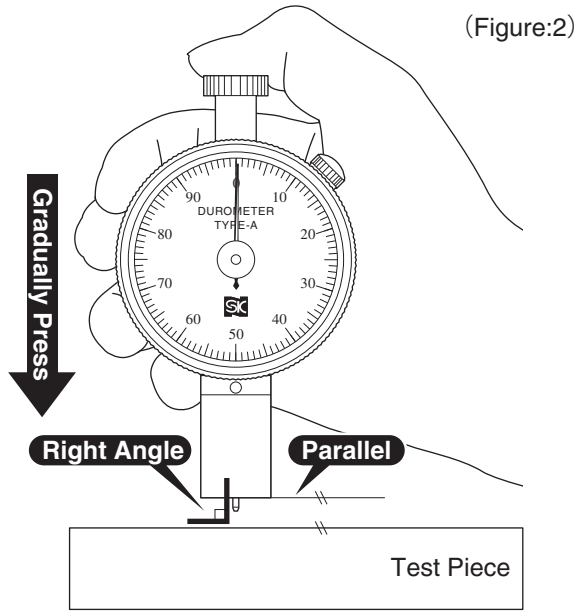


※If indenter is worn, a lower number than specified will be indicated.

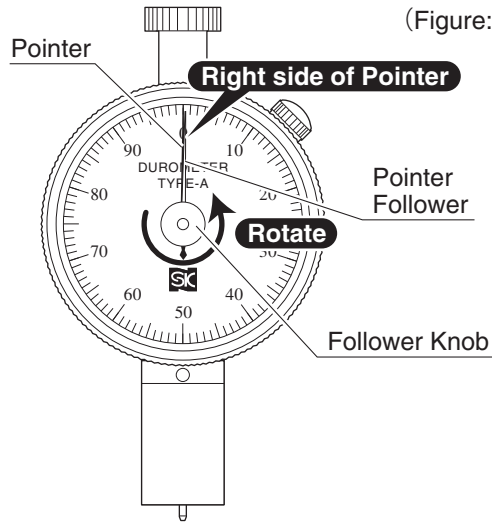
【Measurement Points (5 locations)】 (Figure:1)



(Figure:2)



(Figure:3)



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