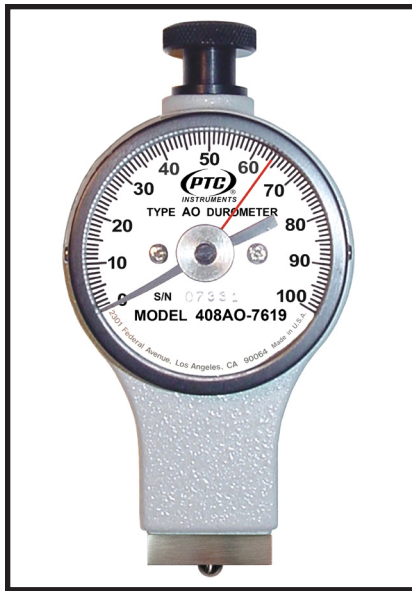




# ISO Type AO Durometer Analog Ergo Style - Model 408AO-7619



Made In U.S.A.



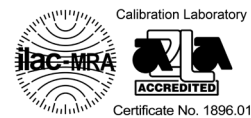
Model 408AO-7619 Durometer  
for materials measuring less than 20A

The Model 408AO-7619 Durometer is designed to measure Type AO hardness per ISO 7619-1 Standard. This instrument measures the indentation hardness of vulcanized or thermoplastic rubber in the low hardness range and cellular rubbers.

The instrument has  $\pm 1/2$  point accuracy for the most precise measurements of vulcanized or thermoplastic rubbers possible. The durometer comes standard with a Max Hold hand, which will retain the peak reading when needed. The case tapers to 1" x 1" to allow better access to confined areas and still meet the required minimum base area of 500 mm<sup>2</sup> (0.775 in<sup>2</sup>). A removable top knob (8-32 threads) permits both easy hand held use or attachment to test stands.

Each instrument is individually calibrated. A test block and sturdy carrying case are included with the durometer.

- Accuracy of  $\pm 1/2$  Point
- Meets or Exceeds Current ISO 7619-1 Specifications for Type AO
- Base Tapers to 1" x 1"
- NIST/A2LA Certification Available
- Easy to Read 0 to 100 Point Dial
- Max Hold Pointer Standard
- Accessory Deadweight Test Stands are Available
- Includes Precision Aluminum Test Block and Sturdy Carrying Case



PTC Metrology® is accredited by A2LA for durometer calibration to ISO/IEC 17025 & ANSI/ NCSL Z540-1. NIST traceable certification is available for all durometer types covered by current ASTM D2240, ASTM F1957, ISO 868, ISO 7619, and DIN 53505 Standards.

The Calibration Report will include both "as received" and "as left" data. Complete durometer calibration includes: indenter geometry and extension, indicator linearity, and force curve.

Other durometer types, custom models, and durometers of any manufacture can also be certified by PTC Metrology®.

## SPECIFICATIONS

1. Meets or exceeds current ISO 7619-1 Standard.
2. Range (Type AO) ..... 0 to 100 points.
3. Accuracy .....  $\pm 1/2$  point.
4. Test Block (included)..... Model 401AO.
5. Dimensions:
  - Height ..... 4 in. (10.2 cm).
  - Width ..... 2-1/4 in. (5.7 cm).
  - Depth ..... 1-3/4 in. (4.4 cm).
6. Weight ..... 6.2 oz. (177 g).
7. Shipping weight ..... 3 lb. (1.4 kg).

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## OPERATING INSTRUCTIONS

The following procedures are based on ISO 7619-1 Standard. This standard is recognized as being definitive for this model, however, not all applications require such stringent controls.

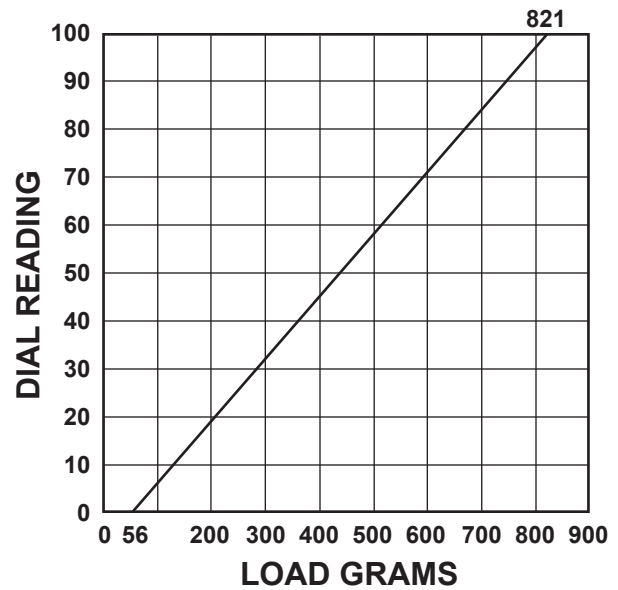
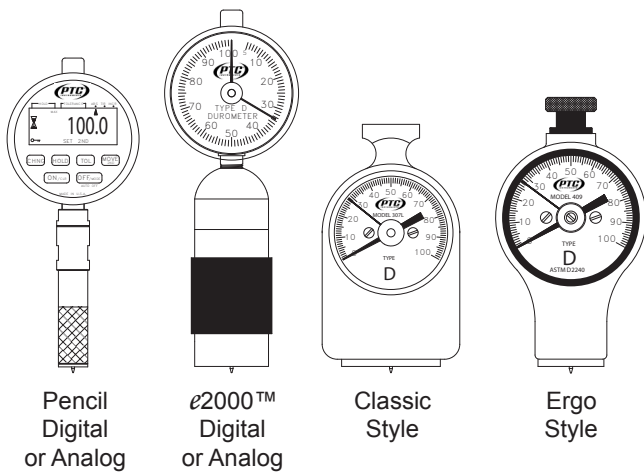
This durometer should be used when material readings are below 20 with Type A durometer.

The surface of the sample to be tested shall be clean and smooth. The sample should be at least 1/4" (6 mm) in thickness. Thinner materials can be stacked (maximum of 3 layer) to obtain the minimum thickness (DO NOT GLUE). Such results may not agree with those of a solid specimen. The sample should be large enough so that the indenter is at least 0.6" (15 mm) from any edge. The surface of the specimen shall be flat and parallel over a sufficient area to permit the presser foot to contact the specimen over an area having a radius of at least 0.35" (9 mm) from the indenter point. The temperature of the specimen should be 73.4°F ±3.5°F (23°C ±2°C). The specimen should be allowed to rest at this temperature for at least 1 hour prior to testing.

Place the specimen on a flat, hard, horizontal surface. Turn the Max Hold hand so that it is past 100 dial points and will not impede the indenter. Hold the durometer vertically with the tip of the indenter at least 0.6" from any edge. Apply the presser foot to the specimen as rapidly as possible, without shock, keeping the foot parallel to the surface of the specimen and ensuring the indenter is normal to the rubber surface. Apply just sufficient force to obtain firm contact between the presser foot and the specimen. Take the reading at the specified time after the presser foot is in firm contact with the specimen. The standard test time shall be 3 sec. for vulcanized rubber and 15 sec. for thermoplastic rubber. Make 5 tests at least 1/4" apart and report the results and their median value.

If using the Max-Hand for maximum readings, set the ancillary hand of the durometer near the pointer (below 5 points on the dial) before taking the reading.

## PTC® Durometer Styles



Force curve for Model 408AO-7619 (ISO 7619-1 Type AO)

## CALIBRATION CHECK

For a complete calibration check of mainspring, and visual and mechanical check of indenter, the instrument should be returned to PTC® (see Guarantee & Calibration Service) or refer to ISO 7619-1 Standard. PTC® recommends the unit be returned at least every 12 months for this check. For a quick field check, follow the guidelines below. Under no circumstance should a test block be used as a standard to calibrate a durometer.

1. The pointer should read zero when no force is applied to the indenter of the durometer.
2. Hand hold the durometer and insert the indenter into the indentation in the brass button of the calibrated test block. Apply enough force to make firm contact between the top surface of the test block and the base of the durometer. The dial reading should agree with the value stamped on the check block (±1). Several tests should be made and the results averaged.
3. The indenter must protrude 2.5 ±0.02 mm below the base of the durometer.
4. When the indenter is fully displaced, the durometer should read 100 points. Use care as to not damage the tip of the indenter.

## LIMITED LIABILITY WARRANTY

PTC® products are covered by a limited liability warranty from defects in material and workmanship for one year from date of purchase. This warranty does not apply if, in the judgement of PTC®, the product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained in a manner not conforming to product's instructions, has been modified in any way, or has a defaced or removed serial number. Repair by anyone other than PTC® or an approved agent voids this warranty. The maximum liability of PTC® is the product purchase price.



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