

SHORE

HARDNESS TESTER
PORTABLE AND LABORATORY SHORE



SHORE



Art. A078.A1.080
MICRO PROBE A SCALE
for easy inside test
Min 45 mm Ø



Art. A078.A1.080
MICRO PROBE A SCALE
Test on tyres



- 3104 - Portable Hardness Tester with electronic processor and interchangeable Probes
- For different scales in compliance with the standard ASTM 2240, ISO R.868, DIN 53505, JIS K7215 according to Shore A, B, C, D, O, OO, E, M, 000, 000-S

- Hardness Tester with electronic processor and interchangeable Probes for different scales:
- A, B, C, D, O, OO, E, M, 000, 000-S Micro Shore with automatic detect of the probe inserted and automatic Calibration
- Adapt to perform accurate and fast test on small parts and large parts and record data
- Very easy to operate : Push and read, memorize the result
- Special ergonomic probe Made in Italy permits easy use in all situation also inclined
- The special connection permit to use the probe in Laboratory connected with the bench support motorized DMG 03 for automatic measures

FUNCTIONS:

- Measure at peak / at time programmable / Continuous
- Store and number of tests, automatic average, list of stored result, statistic deviation diagram (when connected to a hard printer)
- Bat charge indicator and Bat shut off after 2 minute not use (saving data)

TECHNICAL CHARACTERISTICS

Hardness Scales	Shore A D B C O OO E M 000 000-S Micro
Standards	DIN 53505 -ISO 868 - 7619 - NFT 51109 ASTM D 2240 - BS 903 Part. A26
Dimensions	Electronic processor: 112 x 180 x 70 mm Probe diameter 40 foot diameter 16mm Height 108 mm + Cable
Data transmission	RS 232 C
Resolution	0.1 unit
Power source	6 V CC 250 mA
Field of applications	all products tested trough Shore system (plastic, rubber, paper, Silicon, PVC, ABS NYLON)
Weight	0.5 Kg probe - 1,4 Kg all complete with processor
Packing weight	4 Kg
Packing measures	470 x 400 x 150 mm in a portable bag

APPLICABLE ACCESSORIES

- Portable Printer 20 columns (63628)
- Motorized Bench support for laboratory tests DGM03 (Code 079.00.001)
- Bench support for laboratory tests (Code 13)
- Test blocks to check calibration (3320-1)
- Set of clamping parts to execute tests on O.R. conform to ASTM 1414 standard (Code 16)

APPLICABLE PROBES

- Shore A for flexible plastic - rubbers - medical parts - O.Rings (Code 078.A1.010)
- Shore B as A scale but for High values (Code 078.A1.020)
- Shore C as A scale but for low values (Code 078.A1.030)
- Shore D for very hard materials Plexiglass Nylon.. over 80 Shore A (Code 078.A1.040)
- Shore O for soft and not obogeneous material spoon as B (Code 078.A1.050)
- Shore OO for very soft material silicon - Spoon (Code 078.A1.060)
- Shore Micro for thin material mediagal and O.R.small sizes (Code 078.A1.070)
- Shore E ASTM D 2240 - 02 a (Code 3013)
- Shore M ASTM D 2240 - 02 a (Code 3014)
- Shore 000 ASTM D 2240 - 02 a (Code 3015)
- Shore 000-S ASTM D 2240 - 02 a (Code 3016)

ANALOGIC



HARDNESS TESTER

In compliance with ASTM 2240, ISO R.868, DIN 53505, JIS K7215 specifications. For rubber, plastic, medical components, paper, sponge using Shore A, B, C, D, O, OO, E, M, OOO, OOO-S scales. With slim nose to ensure exact measurement also on small components. For laboratory use connect it with bench stand 13.

- | | |
|--------------------|--|
| 3001 - Shore A | - For soft, flexible rubber, plastic, PVC, polyester, neoprene, leather, thiokol, nitril rubbers, tyres, etc. |
| 3011 - Shore B | - As A scale for high values |
| 3004 - Shore C | - As D scale for low values |
| 3002 - Shore D | - Scale for hard and rigid surfaces synthetic materials, acrylics, plexiglass, printing rolls, cellulose, acetates, densified wood, nylon, derling |
| 3010 - Shore DO | - As B and C |
| 3009 - Shore O | - As A scale for low values |
| 3008 - Shore OO | - For sponge, natural rubber silicone |
| 3013 - Shore E | - ASTM D 2240 - 02 a |
| 3014 - Shore M | - ASTM D 2240 - 02 a |
| 3015 - Shore OOO | - ASTM D 2240 - 02 a |
| 3016 - Shore OOO-S | - ASTM D 2240 - 02 a |

ANALOGIC AUTOLOADING



HARDNESS TESTER

In compliance with ASTM 2240, ISO R.868, DIN 53505, JIS K7215 specifications. For rubber, plastic, medical components, paper, sponge using Shore A scale.

3003 Shore A

With clamping and automatic load application

Easy to use, supplied with clamping system to apply a constant and centered pressure on any sample, also on curved surfaces assuring accurate results similar to those obtained through the test with bench support. Suitable for testing tyres adapt to test tyres, roll.

- | | |
|----------------|---|
| 3003 - Shore A | - For soft, flexible rubber, plastic, PVC, polyester, neoprene, leather, thiokol, nitril rubbers, tyres, etc. |
|----------------|---|

SUPPORT MOTORIZED

DMG 03 Support
Motorized Bench -
Height capacity 75 mm



ART. 16

Set of clamping holders for bench connection in compliance with **ASTM 1414** for precise O-Ring testing (section Ø 1.72 - 2.54 - 3.43 - 5.21 - 6.83 mm)

ACCESSORIES



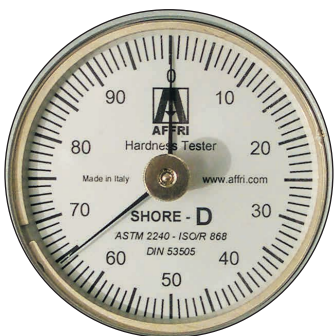
ART 13 - Manual bench support
Bench stand for use with analog or digital portable units, it ensures exact and centered use of the unit on test samples and with a constant pressure.



ART 13 - Manual bench support
ART 14 - Supplementary weight for Shore C - D - DO models



ART 16 - Set of clamping holders for bench connection in compliance with ASTM 1414 for precise test O-Ring (section Ø 1,72 - 2,54 - 3,43 - 5,21 - 6,83 mm)



Second pointer to memorise the measurement (optional)



Complete Kit bag Including printer code 3104

SCALE

	soft	-----	hard
A	10	20	30 40 50 60 70 80 90 100
B		10	20 30 40 50 60 70 80 90 100
C		10	20 30 40 50 60 70 80 90 100
D		10	20 30 40 50 60 70 80 90 100
DO		10	20 30 40 50 60 70 80 90 100
O		10	20 30 40 50 60 70 80 90 100
OO	10	20 30 40 50 60 70 80 90 100	

Indicative range for each scale (this cannot be used as a conversion reference)



Test blocks with certificate for each scale