Zwick / Roell

Product Information

Analog Shore hardness testers

CTA: 98483 146335



ZwickRoell 3115 Hardness Tester with drag pointer



ZwickRoell 3116 Hardness Tester in Test Stand

Applications

The **ZwickRoell 3114 ... 17 Shore hardness testers** are compliant with the requirements of ISO 48-4, ISO 7619-1 (withdrawn), ASTM D 2240, ISO 868, NFT 51109. For on-site testing on the product, versions with and without pointer are available. The instruments with drag-pointers simplify testing, particularly in difficult-to-access locations, as the pointer still indicates the measured value after the test.

- Tests to Shore A (ZwickRoell 3114/15) on soft rubber, elastomers and natural rubber (10 to 90 Shore A).
- Tests to Shore D (ZwickRoell 3116/17) on harder elastomers, plastics and rigid thermoplastics (30 to 90 Shore D).

Advantages and features

- ZwickRoell Shore hardness testers feature a round, anti-glare scale (graduated from 0 to 100 Shore) with precise measured-value display.
- A practical carry-case protects the device from damage and dust.
- To maintain accuracy in your hardness testers we supply rubber test sheets, test rings for 40 and 60 Shore and a test device to verify spring load characteristics.
- Fast, easy testing: the hardness tester is pressed smoothly against the specimen with the prescribed contact force until the presser foot is firmly seated. The hardness value is read off three seconds (ISO) or one second (ASTM) after firm contact is achieved between the presser foot and the test material. The hardness value can also be read off after a longer contact period in the case of materials with significant flow-properties.
- The “ZwickRoell 7206 test device with load-weight” option is suitable for analog Shore hardness testers (ZwickRoell 3114 to 3117). The test device ensures that the hardness tester is exactly perpendicular to the specimen surface, leading to a significant reduction overall in measured-value scatter during hardness tests and is recommended for laboratory tests, as test-procedure repeatability is considerably improved if operator influence is eliminated. Interchangeable load-weights equivalent to 10 N (Shore A), 12.5 N and (optional) 50 N (Shore D) compressive force ensure uniformly consistent contact force.

PI178 623

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Technical data

Analog Shore hardness tester

Description	ArticleNumber
ZwickRoell 3114 Shore A hardness tester to ISO 48-4, ISO 868, ASTM D2240, Incl. storage case Application: soft rubber, elastomers and natural rubber	**321618**
ZwickRoell 3115 Shore A hardness tester with drag pointer to ISO 48-4, ISO 868, ASTM D2240, Incl. storage case Application: soft rubber, elastomers and natural rubber	**321619**
ZwickRoell 3116 Shore D hardness tester to ISO 48-4, ISO 868, ASTM D2240, Incl. storage case Application: hard rubber, rigid thermoplastics	**321620**
ZwickRoell 3117 Shore D hardness tester with drag pointer to ISO 48-4, ISO 868, ASTM D2240, Incl. storage case Application: hard rubber, rigid thermoplastics	**321621**
ZwickRoell 3112 Shore B hardness tester to ASTM D2240 Application: harder elastomers	**342717**
ZwickRoell 3112 Shore B hardness tester, with drag pointer to ASTM D2240 Application: harder elastomers	**342718**
ZwickRoell 3113 Shore C hardness tester to ASTM D2240 Application: medium-hard elastomers	**342719**
ZwickRoell 3113 Shore C hardness tester, with drag pointer to ASTM D2240 Application: medium-hard elastomers	**342720**
ZwickRoell 3119 Shore D0 hardness tester to ASTM D2240 Application: dense granular materials, textile fabrics	**362759**
ZwickRoell 3110 Shore 0 hardness tester to ASTM D2240 Application: soft elastomers, textile fabrics	**342714**
ZwickRoell 3110 Shore 0 hardness tester with drag pointer to ASTM D2240 Application: soft elastomers, textile fabrics	**342715**
ZwickRoell 3111 Shore 00 hardness tester to ASTM D2240 Application: expanded rubber, sponge rubber, foam rubber and human skin	**320991**

Optional accessories

Test devices and verification devices for Shore A/D

Description	ArticleNumber
Test device with 12.5N load weight for Shore A (divided into 10 N + 25 N)	**318882**
Load weight (37.5 N) for Item No. 318882 for Shore D (total load 50 N)	**318883**
Test device for Shore 00 / Shore 000, total load 3.924 N	**352891**
Retaining ring for Shore test devices	**045769**
Adapter for connecting hardness testers with M11x0.5 threaded hole to test device with M11x1.0 stud.	**342654**
Adapter for connecting hardness testers with M11x1.0 threaded hole to test device with M11x0.5 stud.	**342730**
Verification device for analog hardness testers (3114-7) and digital hardness testers (3130/1) with weight set for Shore A)	**342743**
Supplementary weights for Item No. 342743 for Shore D	**342732**
40 Shore test ring with baseplate in carry-case	**342735**
60 Shore test ring with baseplate in carry-case	**324820**

All data at ambient temperature.

Subject to change in the course of further development.

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Test certificates

Description	ArticleNumber
Quality inspection certificate "O" as per DIN 55350, Part 18 No. 4.2.1, without specification of characteristic values	**342725**
Quality inspection certificate "M" as per DIN 55350, Part 18 No. 4.2.2 for ZwickRoell 3114/3115/3116/3117, with check on spring characteristic, check on indenter, complete check of measurement travel distances for Shore hardness 0-100; as per ISO 9000	**321654**
Quality inspection certificate "M" as per DIN 55350, Part 18 No. 4.2.2 for ZwickRoell 3110/3111/3112/3113, with check on spring characteristic; as per ISO 9000	**342726**
Quality inspection certificate "M" as per DIN 55350, Part 18 No. 4.2.2 for ZwickRoell 3110/3111/3112/3113, with check on spring characteristic, check on indenter, complete check of measurement travel distances for Shore hardness 0-100; as per ISO 9000	**342727**
Quality inspection certificate "M" as per DIN 55350, Part 18 No. 4.2.2 for verification device (Item No. 342743), with check on test load Shore A	**342734**
Quality inspection certificate "M" as per DIN 55350, Part 18 No. 4.2.2 for verification device (Item No. 342743), with check on test load Shore A and D	**342733**
Official DAkkS/DKD calibration certificate for verification device (check performed in accordance with PTB guidelines) - Shore A spring force and Shore D spring force	**307753**
Official DAkkS/DKD calibration certificate for verification device (check performed in accordance with PTB guidelines) - Shore A spring force	**307754**
Official DAkkS/DKD calibration certificate for 40" or 60" Shore test ring (check performed in accordance with PTB guidelines) - measurement travel	**307755**