

2020 HARDNESS TESTING CATALOG



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Hardness Testing legacy brands



**Wilson
Instruments**





Wilson® Hardness Test Blocks

Wilson Hardness test blocks set the standard for the industry and are made from the highest quality material to insure the most uniform and repeatable blocks available. A comprehensive variety of scales and blocks are available to meet the wide ranges and hardness scales associated with Rockwell®, Brinell, Knoop and Vickers testing. All Wilson test blocks are calibrated in the Wilson Hardness Calibration Laboratory in Binghamton, NY. The Wilson lab is accredited to ISO-IEC 17025 by A2LA and the testers used in the calibration process undergo a stringent monitoring process using NIST traceable devices. For the ultimate accuracy and performance in tester verification, calibration sets are available for most Rockwell scales.

- We work directly with the steel and brass mills to specify the chemical composition
- Our machining processes (grinding, lapping, polishing) are all done in house, at the site of calibration
- 100% inspection to ensure that every single test block meets the physical requirements of ASTM (thickness, flatness, parallelism, surface roughness)

Wilson® Rockwell Test Blocks

According to ASTM E18, ISO 6508-3 and JIS B 7730



	Part Number	Nominal Hardness
Rockwell A	9201110	63HRA
	9201150	73HRA
	9201190	83HRA
Rockwell B •	9202050W	40HRB
	9202060W	50HRB
	9202070W	60HRB
	9202080W	70HRB
	9202090W	80HRB
	9202100W	95HRB
Rockwell C	9203111	25HRC
	9203121	30HRC
	9203131	35HRC
	9203141	40HRC
	9203151	45HRC
	9203161	50HRC
	9203171	55HRC
	9203181	60HRC
	9203191	63HRC
Rockwell E•	9205010W	57HRE
	9205020W	63HRE
	9205050W	81HRE
	9205060W	87HRE
	9205070W	93HRE
Rockwell F•	9206020W	63HRF
	9206050W	80HRF
	9206070W	91HRF

	Part Number	Nominal Hardness
Superficial Rockwell 15-N	9212110	72HR15N
	9212150	83HR5N
	9212190	91HR15N
Superficial Rockwell 15-T•	9218020W	64HR15T
	9218050W	74HR15T
	9218070W	80HR15T
	9218090W	87HR15T
Superficial Rockwell 30-N	9213110	46HR30N
	9213130	55HR30N
	9213150	64HR30N
	9213190	80HR30N
Superficial Rockwell 30-T•	9219050W	43HR30T
	9219070W	56HR30T
	9219090W	70HR30T

• Certified using a Tungsten Carbide ball indenter

Special Order Items

Part Number	Description
9201002	Special value - please provide hardness value and Rockwell scale
9201003	Special value with grid - please provide hardness value and Rockwell scale
9201006	API compliance - special tolerance - please provide hardness value and Rockwell scale



Wilson® Hardness Test Blocks

Wilson® Vickers-Knoop Test Blocks

According to ASTM E92, ISO 6507-3 and JIS B 7735



Vickers Test Blocks

HV0.05	HV0.1	HV0.2	HV0.3	HV0.5	HV1	HV2	HV3	HV5	HV10	HV20	HV30	HV50	Value
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	150
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	200
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	250
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	300
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	350
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	400
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	450
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	500
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	550
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	600
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	700
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	775
930005-	93001-	93002-	93003-	93005-	9301-	9302-	9303-	9305-	9310-	9320-	9330-	9350-	830

Item number example: 93003700 for a 700 HV0.3 test block

not ISO 6507 due to <20µm diagonal length

Macro Vickers blocks (2.4in x 0.35in [60mm x 9mm])

Micro Vickers blocks (1.25in x 0.63in [32mm x 16mm])

Knoop Test Blocks

According to ASTM E92, ISO 4545-3 and JIS B 7734

Load (kg)	Part Number	Nominal Hardness	Range
HK0.5	94-005-225	225 HK	200-250
	94-005-315	315 HK	290-340
	94-005-440	440 HK	415-465
	94-005-540	540 HK	515-565
	94-005-630	630 HK	605-655
	94-005-730	730 HK	705-755
	94-005-850	850 HK	825-875

Special Order Items

not applicable for Europe, please contact Buehler Europe etc..

Part Number	Description
93-000-001*	Special block - please provide hardness value and Vickers scale
93-000-002*	Special block - please provide hardness value and Vickers scale
94-000-001*	Special block - please provide hardness value and Knoop scale
93-000-012*	Special block - 2 scales certification - please provide hardness value and Vickers/Knoop scale
93-000-013*	Special block - 3 scales certification - please provide hardness value and Vickers/Knoop scale
93-000-014*	Special block - 4 scales certification - please provide hardness value and Vickers/Knoop scale

*Specify hardness required and load force for calibration

•Specify additional load force for calibration





Wilson® Brinell Test Blocks

According to ASTM E10, ISO 6506-3 and JIS B 7736

Brinell reference blocks up to 250kgf load

Nominal value	Range	HBW2.5-62.5 scale	HBW2.5-187.5 scale	HBW5-250 scale
140 HBW	115-169	WH-140HBW-625	WH-140HBW-1875	WH-140HBW-250
200 HBW	170-224	WH-200HBW-625	WH-200HBW-1875	WH-200HBW-250
250 HBW	225-274	WH-250HBW-625	WH-250HBW-1875	WH-250HBW-250
300 HBW	275-324	WH-300HBW-625	WH-300HBW-1875	
350 HBW	325-375	WH-350HBW-625	WH-350HBW-1875	
400 HBW	375-449		WH-400HBW-1875	
500 HBW	450-525		WH-500HBW-1875	

Brinell reference blocks up to 3000kgf load



Nominal value	Range	HBW5-750 scale	HBW10-3000 scale
140 HBW	115-169	WH-140HBW-750	WH-140HBW-3000
200 HBW	170-224	WH-200HBW-750	WH-200HBW-3000
225 HBW	212-238		WH-225HBW-3000
250 HBW	225-274	WH-250HBW-750	WH-250HBW-3000
275 HBW	262-288		WH-275HBW-3000
300 HBW	275-324	WH-300HBW-750	WH-300HBW-3000
325 HBW	312-338		WH-325HBW-3000
350 HBW	325-375	WH-350HBW-750	WH-350HBW-3000
375 HBW	362-388		WH-375HBW-3000
400 HBW	375-449	WH-400HBW-750	WH-400HBW-3000
500 HBW	450-525	WH-500HBW-750	WH-500HBW-3000

Other Brinell scales that use 1mm 2.5mm, 5mm or 10mm ball indenters †

not applicable for Europe, please contact Buehler Europe etc..

Part Number	Description
WHSMLBRIN*	Special block - please provide hardness value and Brinell scale using 1mm or 2.5mm ball indenter

Part Number	Description
WHSPECBRIN*	Special block - please provide hardness value and Brinell scale using 5mm or 10mm ball indenter

† Specify hardness required, load force, and ball indenter size for certification



See Test Block Guide for More Information



Globally Recognized Accreditation



Solutions for NADCAP Accreditation

Buehler Has the Expertise for Direct Verification

As part of the ITW Test & Measurement Group, Buehler maintains its own service department of experienced service engineers and also coordinates direct verification with Instron and an experienced sales and distributor team. We have global presence and global experience in working with customers to meet NADCAP audits.

DiaMet Hardware Software - Prompts User to Perform Indirect Verification Tests

Buehler developed a special verification software module within the DiaMet hardness software. The verification program will prompt operators to perform indirect verification tests as required. This way, full traceability is guaranteed and is clearly exhibited during audits.

Calibration and Cleaning Services

Ensure consistent performance of equipment, minimize production downtime and reduce the likelihood of costly repairs with Buehler Calibration Services. Cleaning and calibration of high precision equipment provides repeatable and reliable results. As a valued customer, we appreciate your partnership and are here to support you with repair services and spare parts under warranty and beyond.

ISO / ASTM Calibrated Hardness Blocks Direct from Buehler

All hardness test blocks used in day to day indirect verification in accordance with ISO & ASTM standards and are calibrated in the Buehler standards laboratory on machines with Direct verification traceability.

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Service Technicians Available for Calibration

An accredited technician will perform a scheduled calibration in compliance with current ASTM. E10, E18 or E384 using N.I.S.T. traceable standards where applicable.

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Certified Hardness Reference Blocks

For Rockwell, Brinell, Vickers and Knoop hardness testers produced in our own facility.

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