



The global standard for quality hardness test blocks

TEST BLOCKS & INDENTERS 2014



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**Edition:
MASTERBLOCK E-2014**

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www.innovatest-europe.com



The global standard for quality hardness test blocks

Hardness test blocks or hardness reference plates are comparison plates most commonly made of Steel or Aluminum but could also be made of Brass or custom materials.

They are used for the day to day Indirect Verification and Calibration of hardness testing machines and instruments.

There are hardness test blocks for almost all hardness testing methods and scales. Verifying the display reading of a hardness tester against ISO/ASTM certified hardness test block values part of a normal quality assurance process.

Adjusting your hardness tester according to the value engraved in a hardness test block, as long as the adjustments are minor, can be done after assurance that a correct and undamaged indenter/penetrator is installed and the tester operates normally.

ISO & ASTM HARDNESS TEST BLOCKS (UKAS, Etc.)

Hardness test blocks MASTERBLOCK® branded are manufactured according to standards ISO (International) and ASTM (American). Such standards apply to the physical requirements as well to the method & the way the final value is found and confirmed. By adding a grid on the blocks they meet the requirements of NADCAP.

MASTERBLOCK® hardness test blocks are not “just” hardness test blocks. Our blocks are of excellent finish and have very low variation, excellent repeatability.

RAW MATERIALS USED

In order to manufacture good hardness test blocks, strict control over the quality of raw materials (Steel, Brass, Aluminum) is required. The entire block material needs to be homogenous, to assure low spread of readings and excellent repeatability.

HEAT TREATMENT

Distribution of the blocks in the hardening furnaces is of utmost importance, time, temperature and quench are all carefully controlled processes, to assure a top class product.

FINISHING

The next step in the process to ensure high quality ‘blanks’ is the grinding, polishing and lapping of the block surfaces. Any concerns on the surface quality are eliminated due to thorough selection after inspection.

QUALITY CONTROL

Before proceeding with the ultimate verification and engraving of the block hardness, blocks are undergoing a full inspection to ensure that they meet the physical requirements of ISO and ASTM (thickness, flatness, parallelism, surface roughness).

The MASTERBLOCK® appointed Calibration Laboratory D. Ellis, is accredited to ISO / IEC 17025 by NVLAP*.

The National Voluntary Laboratory Accreditation Program (NVLAP) provides third-party accreditation to testing and calibration laboratories in response to legislative actions or requests from government agencies or private-sector organizations. NVLAP-accredited laboratories are assessed against the management and technical requirements published in the International Standard, ISO/IEC 17025:2005 (ISO: Organization for Standardization).

*NVLAP is affiliated to the National Institute of Standards and Technology, NIST.

The blocks are also compliant for the use by organizations or companies that are under the NADCAP Program. (National Aerospace and Defense Contractors Accreditation Program).

Nadcap compliant “grid” blocks, are available on request.

ILAC: GLOBAL RECOGNITION OF ACCREDITING BODIES

UKAS, NVLAP, DAkkS, Cofrac and many national accrediting bodies & laboratories are signatories (members) of ILAC.

ILAC- is an international cooperation of laboratory and inspection accreditation bodies. Accreditation bodies are established in many countries with the primary purpose of ensuring that conformity assessment bodies are subject to oversight by an authoritative body. A laboratory calibration performed under the scope of accreditation recognized by the ILAC agreement is considered to be an equivalent calibration to any other laboratory recognized by the ILAC agreement.

For a complete list of ILAC recognized accrediting bodies or ILAC members please refer to www.ilac.org.

- BE CERTAIN, USE MASTERBLOCK® -

ROCKWELL DIAMOND SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6508-3 & ASTM-E18

Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Rockwell Diamond

Round

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRC	20	25	30	35	40	45	50	55	60	63	65	67	
HRA Soft	22	26	31	35	40	45	47	50	53	55	59	62	
HRA Hard	60	63	65	68	70	73	76	78	81	83	84	85	
HRD	40	44	48	52	56	60	64	67	71	73	74	77	
HR15N	69	72	75	78	81	83	85	88	90	91	92	93	
HR30N	41	46	50	55	59	64	68	73	77	80	82	83	
HR45N	19	25	31	37	43	49	55	61	66	70	72	74	

Block size: ø61mm x 12mm thickness

Blocks can be supplied with NADCAP compliant grid.

Rockwell Diamond

Square

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRC	20	25	30	35	40	45	50	55	60	63	65	67	
HRA Soft	22	26	31	35	40	45	47	50	53	55	59	62	
HRA Hard	60	63	65	68	70	73	76	78	81	83	84	85	
HRD	40	44	48	52	56	60	64	67	71	73	74	77	
HR15N	69	72	75	78	81	83	85	88	90	91	92	93	
HR30N	41	46	50	55	59	64	68	73	77	80	82	83	
HR45N	19	25	31	37	43	49	55	61	66	70	72	74	

Block size: 51mm x 51mm, 7mm thickness

Blocks can be supplied with NADCAP compliant grid.





The global standard for quality hardness test blocks

ROCKWELL STEEL BALL SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6508-3 & ASTM-E18

Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Rockwell Steel Ball

Round

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRB	20	30	40	50	60	70	75	80	85	90	95	100	
HRE		75	81	87	93	100							
HRF		74	80	86	91	97	100						
HRG				3	18	33	41	49	58	66	74	83	
HRH	94	98											
HRK	38	47	56	65	73	81	86	91	95	99			
HR15T	67	70	73	77	80	83	85	86	88	90	91	93	
HR30T	29	36	43	49	56	63	66	69	73	76	80	83	
HR45T		2	12	22	32	43	48	53	58	63	68	73	

Block size: ø61mm x 12mm thickness

Blocks can be supplied with NADCAP compliant grid.

Rockwell Steel Ball

Square*

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRB	20	30	40	50	60	70	75	80	85	90	95	100	
HRE		75	81	87	93	100							
HRF		74	80	86	91	97	100						
HRG				3	18	33	41	49	58	66	74	83	
HRH	94	98											
HRK	38	47	56	65	73	81	86	91	95	99			
HR15T	67	70	73	77	80	83	85	86	88	90	91	93	
HR30T	29	36	43	49	56	63	66	69	73	76	80	83	
HR45T		2	12	22	32	43	48	53	58	63	68	73	

Block size: 51mm x 51mm, 7mm thickness

Blocks can be supplied with NADCAP compliant grid.

*Test blocks are available made out of aluminum "B", "E", "F", "G", "H", "K" Scales, but ranges are more limited.



The global standard for quality hardness test blocks

ROCKWELL CARBIDE BALL SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6508-3 & ASTM-E18

Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Rockwell Carbide Ball

Round*	All mentioned hardness values are nominal values, the actual calibrated values may vary.											
HRB (W)	20	30	40	50	60	70	75	80	85	90	95	100
HRE (W)		75	81	87	93	100						
HRF (W)		74	80	86	91	97	100					
HRG (W)				3	18	33	41	49	58	66	74	83
HRH (W)	94	98										
HRK (W)	38	47	56	65	73	81	86	91	95	99		
HR15T (W)	67	70	73	77	80	83	85	86	88	90	91	93
HR30T (W)	29	36	43	49	56	63	66	69	73	76	80	83
HR45T (W)		2	12	22	32	43	48	53	58	63	68	73

Block size: ø61mm x 12mm thickness

Blocks can be supplied with NADCAP compliant grid.

Rockwell Carbide Ball

Square*	All mentioned hardness values are nominal values, the actual calibrated values may vary.											
HRB (W)	20	30	40	50	60	70	75	80	85	90	95	100
HRE (W)		75	81	87	93	100						
HRF (W)		74	80	86	91	97	100					
HRG (W)				3	18	33	41	49	58	66	74	83
HRH (W)	94	98										
HRK (W)	38	47	56	65	73	81	86	91	95	99		
HR15T (W)	67	70	73	77	80	83	85	86	88	90	91	93
HR30T (W)	29	36	43	49	56	63	66	69	73	76	80	83
HR45T (W)		2	12	22	32	43	48	53	58	63	68	73

Block size: 51mm x 51mm, 7mm thickness

Blocks can be supplied with NADCAP compliant grid.

*Test blocks are available made out of aluminum "B", "E", "F", "G", "H", "K" Scales, but ranges are more limited.

MACRO VICKERS SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6507-3 & ASTM E384-10e1

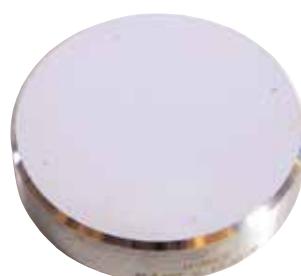
Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Macro Vickers

Round*	All mentioned hardness values are nominal values, the actual calibrated values may vary.										
HV2	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV3	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV5	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV10	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV20	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV30	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV50	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV100	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	

Block size: ø61mm x 12mm thickness

Blocks can be supplied with NADCAP compliant grid.



*Limited range also available in Brass

MICRO VICKERS SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6507-3 & ASTM E384-10e1

Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Micro Vickers

Round*	All mentioned hardness values are nominal values, the actual calibrated values may vary.										
HV1	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.5	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.3	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.2	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.1	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.050	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.025	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.010	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	

Block size: ø37mm x 12mm thickness

Unparalleled quality, mirror polished surface!



*Limited range also available in Brass

KNOOP SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 4545-3 & ASTM E384

Other ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Knoop

Round*	<i>All mentioned hardness values are nominal values, the actual calibrated values may vary.</i>										
HV1	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.5	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.3	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.2	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.1	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.050	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.025	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	
HV0.010	40	70	100	150	200	250	300	350	400	450	
	500	550	600	650	700	750	800	850	900	950	

Block size: ø37mm x 12mm thickness

Unparalleled quality, mirror polished surface!



*Limited range also available in Brass

BRINELL SCALES ISO / ASTM

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025 by NVLAP, an ILAC member.

DUAL CERTIFIED according to ISO 6506-3 & ASTM-E10-01

ILAC members are **DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com), **NADCAP compliant**

Brinell

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 10/3000	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 10/1500	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 10/1000	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 10/500	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 10/250	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 5/750	70	100	150	170	200	250	300	350	400	450	500	550	600	650	
HBW 5/250	70	100	150	170	200	250	300	350	400	450	500	550	600	650	

Block size: 150mm x 50mm x 20mm thickness

* Also available in aluminum

Remark XXX Outside the ranges specified in ISO and ASTM standards.

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 10/100	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 5/125	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 5/62.5	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 5/25	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 2.5/187.5	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 2.5/62.5	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 2.5/31.25	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 2.5/15.625	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 2.5/6.25	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 1/30	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 1/10	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 1/5	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 1/2.5	40	70	100	150	170	200	250	300	350	400	450	500	550	600	
HBW 1/1	40	70	100	150	170	200	250	300	350	400	450	500	550	600	

Block size: ø64mm x 15mm thickness

Remark XXX Outside the ranges specified in ISO and ASTM standards.



The global standard for quality hardness test blocks

ROCKWELL DIAMOND SCALES ISO DAkkS

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025.

Blocks CERTIFIED according to ISO 6508-3

Other ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Rockwell Diamond

Square

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRC	20	25	30	35	40	45	50	55	60	62	63	65	
HRA Soft	40	49	55										
HRA Hard	60	62	65	67	70	73	75	78	81	82	83		
HRD	40	44	48	51	55	59	63	67	71	73	75		
HR15N	68	71	74	76	79	82	85	88	90	90,8	92		
HR30N	41	46	50	55	59	64	68	72	77	79	81		
HR45N	19	25	31	37	43	49	55	60	66	69	72		

Block size: 60mm x 60mm x 16mm thickness

Blocks can be supplied with NADCAP compliant grid.

Rockwell

Square

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HRB	60	75	90	100									
HRE	95												
HRF	90	95											
HRG	62	81	87	94									
HRH													
HRK	76	97											
HR15T	80	87	91	92									
HR30T	56	69	77	82									
HR45T	33	53	65	72									

Block size: 60mm x 60mm x 16mm thickness

Blocks can be supplied with NADCAP compliant grid.



The global standard for quality hardness test blocks

ROCKWELL DIAMOND SCALES ISO Dakks

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Blocks CERTIFIED according to ISO 6508-3

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Rockwell

Square	<i>All mentioned hardness values are nominal values, the actual calibrated values may vary.</i>											
HR 62.5	58	61	64	66	69	72	75	78	80	82	83	
Additional loads available on request												
Block size: 60mm x 60mm x 16mm thickness							Blocks can be supplied with NADCAP compliant grid.					



The global standard for quality hardness test blocks

MACRO VICKERS SCALES ISO DAkkS

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Block CERTIFIED according to ISO 6507-3

ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Standard loads Macro Blocks

Triangular

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HV1	140	240	300	400	450	540	620	720	840				
HV2	140	240	300	400	450	540	620	720	840				
HT	140	240	300	400	450	540	620	720	840				
HV5	140	240	300	400	450	540	620	720	840				
HV10	140	240	300	400	450	540	620	720	840				
HV20	140	240	300	400	450	540	620	720	840				
HT0	140	240	300	400	450	540	620	720	840				
HV50	140	240	300	400	450	540	620	720	840				
HV60	140	240	300	400	450	540	620	720	840				
HV100	140	240	300	400	450	540	620	720	840				
HV120	140	240	300	400	450	540	620	720	840				
HV125	140	240	300	400	450	540	620	720	840				
HV150	140	240	300	400	450	540	620	720	840				

Macro block size: 70mm x 70mm x 70mm x 6mm thickness

Blocks can be supplied with NADCAP compliant grid.



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MICRO VICKERS SCALES ISO DAkkS

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025.

Block CERTIFIED according to ISO 6507-3

Other ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Micro Vickers

Triangular	All mentioned hardness values are nominal values, the actual calibrated values may vary.											
HV10	240	300	400	450	540	620	720	840				
HV5	240	300	400	450	540	620	720	840				
HT	240	300	400	450	540	620	720	840				
HV2	240	300	400	450	540	620	720	840				
HV1	240	300	400	450	540	620	720	840				
HVO.5	240	300	400	450	540	620	720	840				
HVO.3	240	300	400	450	540	620	720	840				
HVO.2	240	300	400	450	540	620	720	840				
HVO.05	240	300	400	450	540	620	720	840				
HVO.03	240	300	400	450	540	620	720					
HVO.025	240	300	400	450	540	620	720					
HVO.015	240	300	400	450	540							
HVO.010	240											
HVO.005	240											

Micro block size: 35mm x 35mm x 35mm x 6mm thickness

Polished surface

KNOOP SCALES ISO DAkkS

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025.

Block CERTIFIED according to ISO 4545-3

Other ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Knoop

Triangular	All mentioned hardness values are nominal values, the actual calibrated values may vary.											
HK0.005	140	240										
HK0.01	140	240										
HK0.015	140	240	300	400	450	540	620	720				
HK0.025	140	240	300	400	450	540	620	720				
HK0.05	140	240	300	400	450	540	620	720	840			
HK0.1	140	240	300	400	450	540	620	720	840			
HK0.2	140	240	300	400	450	540	620	720	840			
HK0.3	140	240	300	400	450	540	620	720	840			
HK0.5	140	240	300	400	450	540	620	720	840			
HK1	140	240	300	400	450	540	620	720	840			
HK2	140	240	300	400	450	540	620	720	840			

Micro block size: 35mm x 35mm x 35mm x 6mm thickness

Polished surface



The global standard for quality hardness test blocks

BRINELL SCALES ISO DAkkS

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025.

Block CERTIFIED according to ISO 6506-3

Other ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Brinell

Rectangular

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 10/3000	150	200	250	300	350	400	450	500	600				
HBW 10/1500													
HBW 10/1000	150	200											
HBW 10/500	150												
HBW 5/750	150	200	250	300	350	400	450	500	600				
HBW 5/250	150	200											
HBW 5/125	150												

Block size at hardness 150 HBW: 150mm x 100mm x 16mm thickness

Block size all others: 100mm x 100mm x 16mm thickness

Triangular

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 2.5/187.5	100	150	200	250	300	350	400	450	500	600			
HBW 2.5/62.5	100	150	200										
HBW 2.5/31.25	100												
HBW 2.5/15.625	100												
HBW 1/30	150	240	300	400	450	540	620						
HBW 1/10	150	240											
HBW 1/5	150												

Above reference blocks HBW 1 have a polished surface

Block size: 70mm x 70mm x 70mm x 6mm thickness



The global standard for quality hardness test blocks

BRINELL SCALES ISO DAkkS

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025.

Block CERTIFIED according to ISO 6506-3

Other ILAC members are **NVLAP, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Brinell

Aluminum rectangular

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 10/1000	60	80	100										
HBW 10/500	60	80	100										
HBW 10/250	60	80											
HBW 5/250	60	80	100										
HBW 5/125	60	80	100										
HBW 5/62.5	60	80											

Block size: 150mm x 100mm x 16mm thickness

Aluminum square

All mentioned hardness values are nominal values, the actual calibrated values may vary.

HBW 2.5/62.5	60	80	100										
HBW 2.5/31.25	60	80	100										
HBW 2.5/15.625	60	80											

Block size: 75mm x 75mm x 16mm thickness



The global standard for quality hardness test blocks

LEEB SCALE (HLD & HLG, to HV, HB or HRC)

The MASTERBLOCK® hardness calibration laboratory is accredited to ISO 17025

Block CERTIFIED according to ASTM A956

ILAC members are **NVLAP, DAkkS, UKAS, A2LA, Cofrac** (for more info see: www.ilac.com)

Leeb, factory certificate

Round	<i>All mentioned hardness values are nominal values, the actual calibrated values may vary.</i>						
HLD	450-550	550-650	700-850				
HLG		250-350					
<i>Block size: ø90mm x 55mm thickness</i>							

Leeb, ASTM A956, DAkkS accredited lab

Round	<i>All mentioned hardness values are nominal values, the actual calibrated values may vary.</i>						
HLD	450-550	550-650	700-850				
HLG		250-350					
<i>Block size: ø90mm x 55mm thickness</i>							

Leeb, ASTM A956, NVLAP, accredited lab

Round	<i>All mentioned hardness values are nominal values, the actual calibrated values may vary.</i>						
HLD	450-550	550-650	700-850				
HLG		250-350					
<i>Block size: ø90mm x 55mm thickness</i>							
Blocks are polished, calibrated and can be used on both sides!							

Indenters for hardness tester

MASTERBLOCK® offers a wide range of certified indenters for a number of hardness testing machine brands and models, whether current or older versions.

Indenters are available for nearly all hardness scales. Please specify your machine brand and type in all enquiries, provide a drawing if available.

We also offer customized indenters.

Rockwell, Vickers & Knoop indenters

Diamonds are sourced worldwide, and are selected individually for size, shape and quality.

Each diamond is orientated to achieve maximum life of the indenter.

Each diamond is sintered at high temperature and pressure into a tungsten carbide matrix in a stainless steel blank. This secures the diamond for the grinding and polishing stages before finishing the indenter body with CNC machining. The sintering process also ensures there is no movement of the diamond when placed under load which would result in inaccurate hardness test readings.

Ball indenters

Our ball indenters are either of steel or made of tungsten carbide.

All indenters can be supplied with either a standard factory certificate or an ISO/ASTM (Ukas/DAkkS/ NVLAP/A2LA) certificate.



Rockwell Indenters

Code No.	Description
IN/6002	Diamond Rockwell indenter including ISO (DAkkS) certificate
IN/6005	Diamond Rockwell indenter including ISO / ASTM certificate
IN/6010	Diamond Rockwell indenter, short version including ISO (DAkkS) certificate
IN/6011	Diamond Rockwell indenter including INNOVATEST® factory certificate
IN/7501	1/16" Ball indenter including 1 steel ball and INNOVATEST® factory certificate€
IN/7505	1/16" Ball indenter including 1 steel ball and ISO / ASTM certificate
IN/7506	1/16" Indenter carbide ball Ø6.35 L= 29mm including ISO / ASTM certificate
IN/7601	1/8" Ball indenter including 1 steel ball and INNOVATEST® factory certificate
IN/7605	1/8" Ball indenter including 1 steel ball and ISO / ASTM certificate
IN/7606	1/8" Indenter carbide ball Ø6.35 L= 29mm including ISO / ASTM certificate
IN/7701	1/4" Ball indenter including 1 steel ball and INNOVATEST® factory certificate
IN/7705	1/4" Ball indenter including 1 steel ball and ISO / ASTM certificate
IN/7706	1/4" Indenter carbide ball Ø6.35 L= 28 mm including ISO / ASTM certificate
IN/7801	1/2" Ball indenter including 1 steel ball and INNOVATEST® factory certificate
IN/7805	1/2" Ball indenter including 1 steel ball and ISO / ASTM certificate
IN/7806	1/2" Indenter carbide ball Ø6.35 L= 38.1mm including ISO / ASTM certificate
IN/2505	Spare steel balls 1/16" including ISO / ASTM certificate (set of 10 pcs.)€
IN/2507	1/16" carbide ball including ISO / ASTM cert. (1 pc.)
IN/2509	1/8" carbide ball including ISO / ASTM cert. (1 pc.)
IN/2510	Spare steel balls 1/8" including ISO / ASTM certificate (set of 10 pcs.)
IN/2514	1/4" carbide ball including ISO / ASTM cert. (1 pc.)
IN/2515	Spare steel balls 1/4" including ISO / ASTM certificate (set of 10 pcs.)
IN/2520	Spare steel balls 1/2" including ISO / ASTM certificate (set of 10 pcs.)



Vickers Indenters

Code No.	Description
IN/8015	Vickers 136° indenter including INNOVATEST® factory certificate
IN/8010	Vickers indenter including ISO / ASTM certificate
IN/8000	Vickers 136° indenter including ISO (DAkkS) certificate certificate for HV5 and higher
IN/8020	Vickers 136° indenter (L=17mm) including ISO (DAkkS) certificate certificate

Micro Vickers Indenters

Code No.	Description
IN/8101	Micro-Vickers 136° indenter for 400 and 4000 series including INNOVATEST® factory certificate
IN/8105	Micro-Vickers 136° indenter for 400 and 4000 series including ISO / ASTM certificate
IN/8110	Micro-Vickers 136° indenter including ISO (DAkkS) certificate for HV 0.1 upto HV1
IN/8115	Micro-Vickers 136° indenter including ISO (DAkkS) certificate for HV 0.2 upto HV2

Knoop Indenters

Code No.	Description
IN/8205	Knoop indenter including ISO / ASTM certificate for 400 and 4000 series
IN/8210	Knoop indenter including ISO (DAkkS) certificate for 400 and 4000 series
IN/8211	Knoop indenter (L=7mm, ø3mm) including ISO (DAkkS) certificate for 400 and 4000 series



Brinell Indenters

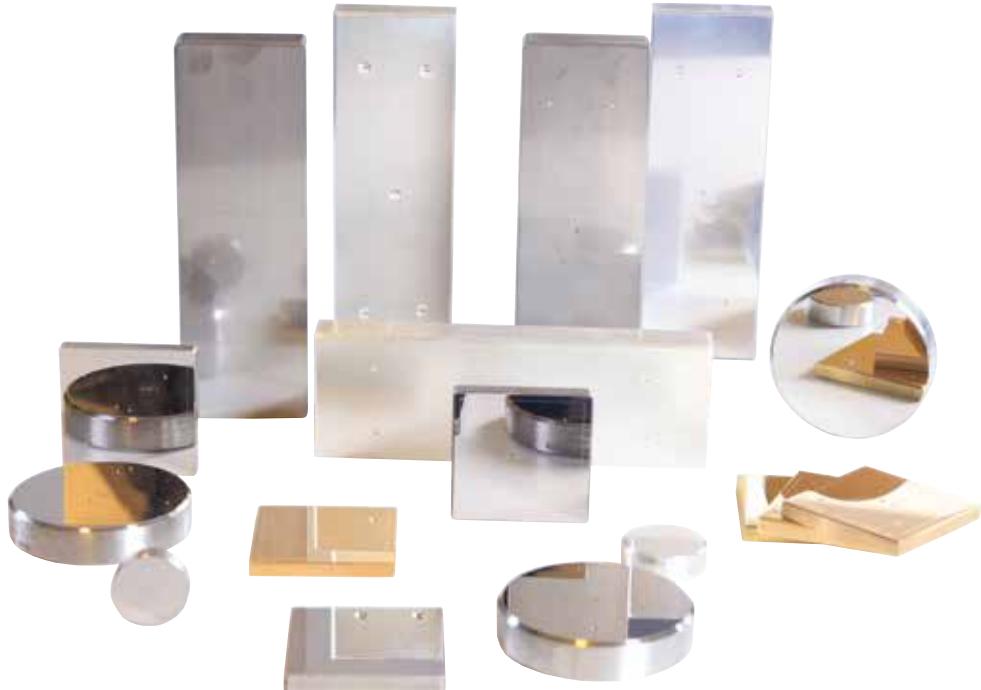
Code No.	Description
IN/7105	Brinell indenter 1mm including carbide ball and INNOVATEST® factory certificate
IN/7110	Brinell indenter 2.5mm including carbide ball and INNOVATEST® factory certificate
IN/7115	Brinell indenter 5mm including carbide ball and INNOVATEST® factory certificate
IN/7120	Brinell indenter 10mm including carbide ball and INNOVATEST® factory certificate
IN/2105	Tungsten carbide ball 1mm
IN/2110	Tungsten carbide ball 2.5 mm
IN/2115	Tungsten carbide 5 mm ball
IN/2120	Tungsten carbide 10 mm ball
IN/7000	Brinell indenter 1mm including carbide ball and ISO / ASTM certificate
IN/7005	Brinell indenter 2.5mm including carbide ball and ISO / ASTM certificate
IN/7010	Brinell indenter 5mm including carbide ball and ISO / ASTM certificate
IN/7015	Brinell indenter 10mm including carbide ball and ISO / ASTM certificate
IN/2005	Tungsten carbide ball 1mm including ISO / ASTM certificate
IN/2010	Tungsten carbide ball 2.5mm including ISO / ASTM certificate
IN/2015	Tungsten carbide ball 5mm including ISO / ASTM certificate
IN/2020	Tungsten carbide ball 10mm including ISO / ASTM certificate
IN/7205	Brinell indenter 1mm including carbide ball and ISO / ASTM certificate
IN/7001	Brinell indenter 1mm (L=7mm, ø3mm) including ISO / ASTM certificate for 4000 series
IN/7006	Brinell indenter 2.5mm (L=7mm, ø3mm) including ISO / ASTM certificate for 4000 series

Further indenters available on request.



MASTERBLOCK®

The global standard for quality hardness test blocks



Notes

Represented by:

INN14-009 240614

CORPORATE HEAD OFFICE

INNOVATEST Europe BV MANUFACTURING, DISTRIBUTION & SERVICE

Borgharenweg 140
6222 AA Maastricht (The Netherlands)
Phone: +31 43 3520060
Fax: +31 43 3631168
E-mail: info@innovatest-europe.com
Website: www.innovatest-europe.com

BRANCH OFFICES

INNOVATEST Benelux BVBA

SALES & SERVICE

Phone: +32 12 779002
Fax: +32 12 779003
E-mail: info@innovatest-benelux.com
Website: www.innovatest-europe.com

INNOVATEST Shanghai Co., Ltd.

DISTRIBUTION, SALES & SERVICE

Building 2, No.123, 1165 Nong Jindu Road,
South Metropolis Industrial Park
Minhang District, Shanghai, P.R. China
Zip code: 201108
Phone: +86 21 60906200
Fax: +86 21 60912595
E-mail: info@innovatest-shanghai.com
Website: www.innovatest-shanghai.com