

Tolerance of accuracy of each product is in the following table.

Tolerance of Accuracy		
Model	GS-703N	GS-754G
	GS-703G	others
Tolerance	±0.45	±2.0
Check point	each 25 50 75 point on the scale	

Note: The types of durometer which can be checked by the GS-707 series are the standard N models and the Peak Pointer models of the type A, E, SRIS, old A, B, and O. It is allowed to issue so called a set of three ISO document: Traceability Chart, Calibration Certificate, and Inspection Report, for all TECLOCK DUROMETERS.

TECLOCK CORPORATION
CERTIFICATE OF CALIBRATION
 We hereby certify that this product has been calibrated and found to be in accordance with the applicable TECLOCK STANDARDS. Equipment used in this calibration has traceable accuracy to the NATIONAL WEIGHT STANDARD.

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THE LIST OF TECLOCK DUROMETER

TYPE	APPLICATION / MATERIALS	STANDARDS	SPRING LOAD	SIZE OF INDENTOR(mm) SIZE / HEIGHT	MODEL
A	For the most popular rubber, elastomers	JIS K 6253, JIS K 7215, ISO 7619, ISO 888, ASTM D 2240, (DIN 53 505) *1 TYPE A DUROMETER *2	0 - 100 550-8050mN (56.1-821.1gf)	Truncated Cone of ϕ 0.79 with 35° angle / 2.50	GS-719N, GS-719G GS-719H, GS-719L GS-709N, GS-709G
D	For the hardest materials, plastics, hard rubbers	JIS K 6253, JIS K 7215, ISO 7619, ISO 888, ASTM D 2240, (DIN 53 505) *1 TYPE D DUROMETER *2	0-44450mN (0-4533gf)	Conical Cone of R0.1 with 30° angle / 2.50	GS-720N, GS-720G GS-720H, GS-720L GS-702N, GS-702G
E	Materials of hardness of eraser, Dense textile winding	JIS K 6253 TYPE E DUROMETER	550-8050mN (56.1-821.1gf)	Hemisphere of R2.50 / 2.50	GS-721N, GS-721G
SRIS	For the most popular rubber, elastomers	SRIS 0101 JIS S 6050	539-8379mN (55-855gf)	Hemisphere of ϕ 5.08 / 2.54	GS-701N, GS-701G
(old)A	Hard rubber	JIS K 6301 SPRING TYPE A STYLE *3	980-44100mN (56.1-821.1gf)	Truncated Cone of ϕ 0.79 with 35° angle / 2.54	GS-706N, GS-706G
(old)C	Rubber softer than eraser	JIS K 6301 SPRING TYPE C STYLE *3	550-4300mN (56.1-438.6gf)	Hemisphere of R2.50 / 2.50	GS-703N, GS-703G
E2	Soft foam materials such as urethane foam	TECLOCK TYPE E2 DUROMETER	550-8050mN (56.1-821.1gf)	Conical Cone of R0.1 with 30° angle / 2.50	GS-743G
FO	Mainly slightly harder than the materials for the TYPE A	TECLOCK TYPE FO DUROMETER	550-8050mN (56.1-821.1gf)	Truncated Cone of ϕ 0.79 with 35° angle / 2.50	GS-744G
B	Possible for biscuit ware clay	ASTM D 2240 TYPE B DUROMETER	550-8050mN (56.1-821.1gf)	Truncated Cone of ϕ 0.79 with 35° angle / 2.50	GS-750G
C	For hard rubber usable for the golf ball	ASTM D 2240 TYPE C DUROMETER	0-44450mN (0-4533gf)	Hemisphere of R1.19 / 2.50	GS-751G
DO	For hard rubber free from the measuring trace. Hardness of like the automobile's handle	ASTM D 2240 TYPE DO DUROMETER	550-8050mN (56.1-821.1gf)		GS-752G
O	Similar to TYPE E. Good for the packing materials such as the styrene foam	ASTM D 2240 TYPE O DUROMETER	203-1111mN (20.7-113.3gf)		GS-753G
OO	For soft materials easy to distort a soft touch of a finger	ASTM D 2240 TYPE OO DUROMETER			GS-754G

*1: The models meet DIN 53 505 are 2 of Long Leg type models: GS-719L and GS-720L. The tolerance of the cone diameter and the spring load are regarded as the values meeting the ISO requirement, and - 709 and - 702 are meeting JIS K 7215, ISO 888 and ASTM D 2240. Long Leg types indicate multiple scales specified in all standards including DIN 53 505.
 *2: TYPE A - 719, - 709 and TYPE D - 720, - 702 are of the same specification and meeting the same standards. A difference is on the scale: - 719 and - 720 are meeting JIS K 6253, ISO 7619 and ASTM D 2240 and - 709 and - 702 are meeting JIS K 7215, ISO 888 and ASTM D 2240.
 *3: Although JIS K 6301 "Physical testing method for Vulcanized Rubber" was eliminated from the new JIS in August, 1998, the meeting models - 703 and - 706 will be produced for a while, since the test result is supposedly used as "the test data mutually agreed for a reference".

TABLE OF DESCRIPTION ABOUT DUROMETER SHOWN IN THE INTERNATIONAL STANDARDS

STANDARD	TYPE SPECIFIED	TIME TO READ	INDICATION OF DATA 50 BY TYPE A	DATA SUMMARY
JIS K 6253-1997 Hardness Testing methods for rubber, vulcanized or thermoplastic	TYPE A, D, E	Within 1 second after firm contact of Pressor foot. Possible to specify a certain period if mutually agreed	A 50 / S S=standard specimen	Intermediate value of 5 points application of the intermediate value is following the criteria of ISO 48-1994
JIS K 7215-1992 Hardness Methods for Durometers: Hardness of Plastics	TYPE A, D	Basically within 1 second after firm contact of Pressor foot	HOA 50	Average value at least 3 points
SRIS 0101-1999 (The society of Rubber Industry, Japan Standard) Physical testing method for Expanded Rubber	Spring Hardness Tester	Meantime and 30 seconds after the Pressor foot is in firm contact with the specimen	No specially specified	Average value of 5 points
JIS K 6301-1999 Physical testing method for Vulcanized Rubber (Unlimited in August, 1998)	Spring type Hardness Tester A TYPE and C TYPE	Right after the Pressor foot is in firm contact with the specimen	50 H/JIS A	Average value of 5 points
ISO 7619-1986 Rubber-Determination of indentation hardness by means of pocket hardness meters	TYPE A, D	Within 1 second after firm contact of the Pressor foot or a certain period is passed	A 50	Average value of 5 points
ISO 868-1985 Plastics-Determination of indentation hardness by means of a durometer	TYPE A, D	Within 1 second after firm contact of the Pressor foot or after 15±1 seconds	A / 50 / 1	Average value of 5 points
ASTM D 2240-1993 (American Society for Testing and Materials) Standard Test Method for Rubber Property-Durometer Hardness	TYPE A,B,C,D,DO,O,OO	Within 1 second (max.value) after firm contact of the Pressor foot or after a certain period mutually agreed	A / 50 / 1	Average value of 5 points
DIN 53 505-1997 (Deutsches Institut für Normung) Testing of rubber, and plastic Shore hardness testing A and D	TYPE A, D	3 seconds or 15 seconds after	50 Shore A (clearly describes the past time)	Average value at least 3 points

SHAPE OF INDENTOR OF DUROMETER

