

# DUROMETER (RUBBER, PLASTIC HARDNESS TESTER)



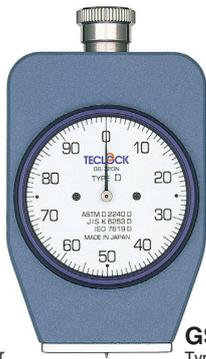
When the base of Durometer and workpiece are coerced each other, the indenter changes shape of workpiece by pressurized force caused by spring of Durometer and workpiece makes force against this force. Force amount of indenter is indicated as hardness when this pressurized force and repulsive force are equivalent. The reason why there are various kinds of Durometer, it is for the purpose of measuring various hardness for soft materials like sponge and hard materials like plastic by combining strong and weak spring force and shape of needle indenter (sharp pointed or round)

## Compliance with JIS K 6253, ISO7619, ISO868 and ASTM D 2240 — standard for hardness test of vulcanized or thermoplastic rubber

This is Durometer to comply with JIS K 6253 (new JIS) standard established in 1993 for the purpose of conforming to ISO ( International Standard Organization ). Durometers consist of 3 types namely, Type A for medium hardness, Type D for high hardness and Type E for low hardness. Type A tends to indicates higher value by 1~2 points compared with former Type A durometers. Type D is suitable for hard rubber having more than 90 hardness measured by type A durometer and Type E is suitable for soft rubber of which hardness is 20 and below measured by Type A durometer.



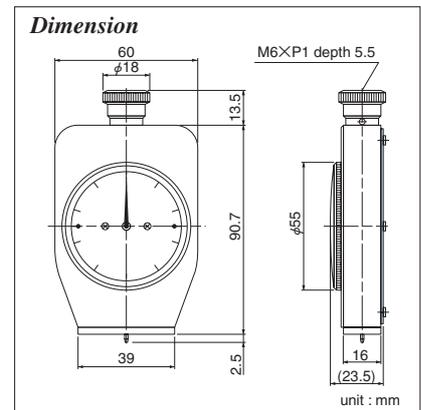
**GS-719N**  
Type A Durometer  
General rubber



**GS-720N**  
Type D Durometer  
Hard rubber

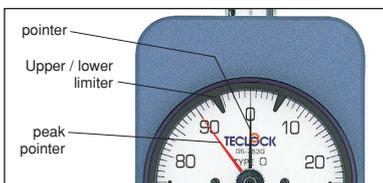


**GS-721N**  
Type E Durometer  
Soft rubber



### Specifications

Model	Type	APPLICATION / MATERIALS	Conform standards	Spring load value 0-100	Indenter shape (mm)	Indenter height (mm)	Weight (g)
GS-719N	Type A	General rubber (Medium hardness)	JIS K 6253	550-8050mN (56.1-821.1gf)	Truncated Cone of $\phi$ 0.79 with 35° angle	2.50	180
GS-719G	Type A (Peak pointer type)	General rubber (Medium hardness)	ISO7619	550-8050mN (56.1-821.1gf)	Truncated Cone of $\phi$ 0.79 with 35° angle	2.50	180
GS-720N	Type D	Hard rubber (High hardness)	ISO868	0-44450mN (0-4533gf)	Conical Cone of R0.1 with 35° angle	2.50	180
GS-720G	Type D (Peak pointer type)	Hard rubber (High hardness)	ASTM D 2240	0-44450mN (0-4533gf)	Conical Cone of R0.1 with 35° angle	2.50	180
GS-721N	Type E	Soft rubber (Low hardness)	JIS K 6253	550-8050mN (56.1-821.1gf)	Hemisphere of R2.50	2.50	180
GS-721G	Type E (Peak pointer type)	Soft rubber (Low hardness)	ASTM D 2240	550-8050mN (56.1-821.1gf)	Hemisphere of R2.50	2.50	180



### Peak Pointer Type

Some of Rubbers, Elastomer' elastic body is not easily read the maximum value after firm contacting with a presser foot of durometer , due to the stress relaxation. The pointer indicates the descendent value but the peak pointer is holding the maximum measured value. The peak pointer type can easily read the maximum value efficiently. In case the pointer cannot be read directly due to some obstacles although the measuring can be done, the measured value can be confirmed from peak pointer after measuring. The upper / lower limiters equipped will be effectively used in tolerance judgment.