

Shore® Durometer Selection Guide

The Shore® Durometer Selection Guide is designed to assist in the selection of the proper durometer for your testing application. It is generally recognized that durometer hardness determinations below 20 and above 85 are unreliable, please consider using the next lower or higher type (scale) in these situations.



It is also highly recommended that, whenever possible, an operating stand be employed in performing durometer hardness tests. Please visit the Shore® Operating Stand WebPages to select either a suitable [Automatic Operating Stand](#) or [Manual Operating Stand](#) for your application.

CCSi has included a vast amount of durometer testing information on our WebSite, including an informative article on [Basic Durometer Testing](#).

Guide to Shore® Durometer Models

- 'S1': Modular
- 'X': Round Style
- 'Q': Quadrant Style
- 'P': Pencil Styles **NOTE**
- 'CL': Constant Load Style
- 'MX': Maximum Hand Option
- 'TH': Tolerance Hands Option
- Letter designation indicates type (scale)

Example for Model XAMX

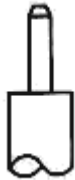
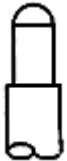
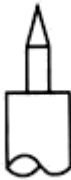
where:

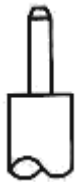
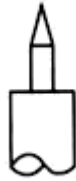
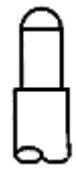
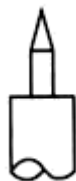
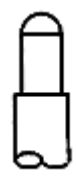
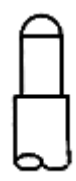
- 'X' indicates a *Round Style* durometer;
- 'A' indicates *Type A* (ASTM D2240, ISO 868, ISO 7619);
- 'MX' indicates a *Maximum Reading Hand*.


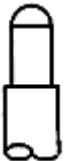
Detailed descriptions of the various configurations are available on the individual durometer pages, which may be visited directly from the Shore® Durometer Selection Guide using the text link in the 'Part Number' column.

NOTE Shore® Pencil Style Durometers no longer conform to [ASTM D2240](#).

Shore® Durometer Selection Guide

Type	Selection Guide	Part N°	Model N°	Standards	Spring (gf)	Indenter Geometry
A	Rubber: Soft vulcanized, natural, nitrile	9130-021 407000000 407010000 407020000 407030000 407040000 407041000 407041100 407041200 407041300 407041400	S1A PA QA QAMX XA XAMX XACL XACLMX XATH XAHAF XAMXHAF	ASTM D2240 ISO 868 ISO 7619	822	
JIS A	Elastomers: neoprene, thiokol, polyacrylics	9130-030 407042600 407042700 407042800 407042900	S1JISA JXA JXAMX JXAHAF JXAMXHAF	JIS K 6253	855	35° Truncated Cone Ø 1.40 mm
SRIS	Other: Wax, felt, leather, etc.	405020000 405030000	FWC FWCHAF	SRIS0101 ASKER C	855	 Sphere Ø 5.08 mm
B	Rubber: Moderately Hard	9130-022 407010100 407020100 407030100 407041500 SPECIAL	S1B QB QBMX XB XBHAF XBMX	ASTM D2240	822	 30° Cone Ø 1.40 mm

Type	Selection Guide	Part N°	Model N°	Standards	Spring (gf)	Indenter Geometry
C	Rubber: Medium Hard	9130-023 407010200 407020200 407030200 407040200 407041700	S1C QC QCMX XC XCMX XCHAF	ASTM D2240	4536	
	Plastics: Medium Hard	9130-031 407043000 407043100	S1JISC JXC JXCMX	JIS K 6253	4500	35° Truncated Cone Ø 1.40 mm
D	Rubber: Hard Plastics: Harder grades, Thermoplastics	9130-024 407010300 407020300 407030300 407040300 407041900 407042000	S1D QD QDMX XD XDMX XDHAF XDMXHAF	ASTM D2240 ISO 868 ISO 7619	4536	 30° Cone Ø 1.40 mm
DO	Textile Windings: Very Dense	9130-025 407010400 407020400 407030400 407040400 407042100	S1DO QDO QDOMX XDO XDOMX XDOHAF	ASTM D2240	4536	 Sphere Ø 2.40 mm R 1.20 mm
M	Rubber: Thin & irregular	407140000 9130-032 902-719	714 719 (S1) 902-719 (S1)	ASTM D2240 ISO 7619	78	 30° Cone Ø 0.79 mm
O	Rubber: Soft Textile Windings: Medium Density	9130-026 407010500 407020500 407030500 407040500 407042300	S1O QO QOMX XO XOMX XOHAF	ASTM D2240	822	 Sphere Ø 2.40 mm R 1.20 mm
OO	Rubber: Sponge Plastics: Foams Textile Windings: Low Density	9130-027 407010600 407030600 407042500	S1OO QOO XOO XOOHAF	ASTM D2240	113	 Sphere Ø 2.40 mm R 1.20 mm

Type	Selection Guide	Part N°	Model N°	Standards	Spring (gf)	Indentor Geometry
000-S	<u>Rubber:</u> Sponge <u>Plastics:</u> Foams	407030800	X000	ASTM D2240	197	 Sphere Ø 12.0 mm R 12.7 mm
T	<u>Textile Windings:</u> Medium Density bobblins & spools	407010700 407030700 SPECIAL	QTMX XT XTMX	Pending	113	 Sphere Ø 2.40 mm R 1.20 mm
IRHD	<u>Rubber:</u> Variable Hardness	903/2000 770/2000	IRHD	ASTM D1415 ISO 48 / N		2.50 mm ball

Copyright © 2006 CCSi, Inc. • All Rights Reserved • Published February, 2006

Corporate Consulting, Service & Instruments, Incorporated
 221 Beaver Street • Akron, Ohio 44304 USA
 Telephone: 800.742.8535 / 330.376.3600 • Facsimile: 800.229.9329 / 330.376.8500
 • WWW.CCSI-INC.COM • WWW.ORECOZONE.NET •