

# Product Information Sheet

## GRADE 9 THICK HARDENED FLAT WASHERS

**Typical Material:** 1050 Carbon Steel

**Hardness:** HRC 40-45

**Dimensions:** ANSI B18.22.1, Table 1A except as shown below

**Marking:** Manufacturers I.D. mark and "9"

**Zinc Yellow Plating:** Purchased to meet ASTM B633-98,  
Type II, Class Fe/Zn5

**All Washers are made in the USA from steel melted and manufactured in the USA**



### GRADE 9 THICK HARDENED FLAT WASHERS DIMENSIONS

#### SAE Pattern (Category 00099)

Size	O.D.	I.D.	Thickness
1/4	0.620-0.640	0.339-0.349	0.072-0.086
5/16	0.681-0.703	0.339-0.349	0.072-0.086
3/8	0.805-0.827	0.401-0.411	0.097-0.115
7/16	0.915-0.937	0.464-0.474	0.097-0.115
1/2	1.055-1.092	0.531-0.541	0.122-0.138
9/16	0.589-0.609	0.594-0.604	0.122-0.138
5/8	1.305-1.342	0.649-0.661	0.136-0.160
3/4	1.462-1.499	0.812-0.824	0.177-0.196
7/8	1.743-1.780	0.938-0.950	0.177-0.196
1	1.993-2.030	1.062-1.075	0.177-0.196

#### USS Pattern (Category 00098)

1/4	0.727-0.749	0.276-0.286	0.072-0.086
5/16	0.868-0.905	0.339-0.349	0.072-0.086
3/8	0.993-1.030	0.401-0.411	0.097-0.115
7/16	1.243-1.280	0.464-0.474	0.097-0.115
1/2	1.368-1.405	0.531-0.541	0.122-0.138
9/16	1.462-1.499	0.594-0.604	0.122-0.138
5/8	1.743-1.780	0.649-0.661	0.136-0.160
3/4	1.993-2.030	0.812-0.824	0.177-0.196
7/8	2.243-2.280	0.938-0.950	0.177-0.196
1	2.493-2.530	1.062-1.075	0.177-0.196



**GLASER & ASSOCIATES, INC.**

4808 SUNRISE DRIVE, MARTINEZ, CA 94553

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