

## MOHS HARDNESS TABLES

HARDNESS NUMBER	ORIGINAL SCALE	MODIFIED SCALE
1	TALC	TALC
2	GYP SUM	GYP SUM
3	CALCITE	CALCITE
4	FLUORITE	FLUORITE
5	APATITE	APATITE
6	ORTHOCLASE	ORTHOCLASE
7	QUARTZ	VITREOUS SILICA
8	TOPAZ	QUARTZ OR STELLITE
9	CORUNDUM	TOPAZ
10	DIAMOND	GARNET
11	***	FUSED ZIRCONIA
12	***	FUSED ZIRCONIA
13	***	SILICON CARBIDE
14	***	BORON CARBIDE
15	***	DIAMOND

## HARDNESS OF MATERIALS

SUBSTANCE	NUMBER	SUBSTANCE	NUMBER
AGATE	6 - 7	INDIUM	1.2
ALABASTER	1.7	IRIDIUM	6 - 6.5
ALUM	2 - 2.5	IRIDOSMIUM	7
ALUMINUM	2 - 2.9	IRON	4 - 5
ALUNDUM	9+	KAOLINITE	2.0 - 2.5
AMBER	2 - 2.5	LEAD	1.5
ANDALUSITE	7.5	LITHIUM	0.6
ANTHRACITE	2.2	LOESS	0.3
ANTIMONY	3.0 - 3.3	MAGNESIUM	2.0
APATITE	5	MAGNETITE	6
ARAGONITE	3.5	MANGANESE	5.0
ARSENIC	3.5	MARBLE	3 - 4
ASBESTOS	5	MEERSCHAUM	2 - 3
ASPHALT	1 - 2	MICA	2.8
AUGITE	6	OPAL	4 - 6
BARITE	3.3	ORTHOCLASE	6
BELL-METAL	4	OSMIUM	7.0
BERYL	7.8	PALLADIUM	4.8
BISMUTH	2.5	PHOSPHORUS	0.5
BORIC ACID	3	PLATINUM	4.3
BORON	9.5	PLAT-IRIDIUM	6.5
BRASS	3 - 4	POTASSIUM	0.5
CADMIUM	2.0	PUMICE	6
CALAMINE	5	PYRITE	6.3
CALCITE	3	QUARTZ	7
CALCIUM	1.5	ROCK SALT (HALITE)	2
CARBON	10.0	ROSS' METAL	2.5 - 3.0
CARBORUNDUM	9 - 10	RUBIDIUM	0.3

CESIUM	0.2	RUTHENIUM	6.5
CHROMIUM	9.0	SELENIUM	2.0
COPPER	2.5 - 3	SERPENTINE	3 - 4
CORUNDUM	9	SILICON	7.0
DIAMOND	10	SILVER	2.5 - 4
DIATOMACEOUS EARTH	1 - 1.5	SILVER CHLORIDE	1.3
DOLOMITE	3.5 - 4	SODIUM	0.4
EMERY	7 - 9	STEEL	5 - 8.5
FELDSPAR	6	STIBNITE	2
FLINT	7	STRONTIUM	1.8
FLUORITE	4	SULFUR	1.5 - 2.5
GALENA	2.5	TALC	1
GALLIUM	1.5	TELLURIUM	2.3
GARNET	6.5 - 7	TIN	1.5 - 1.8
GLASS	4.5 - 6.5	TOPAZ	8
GOLD	2.5 - 3	TOURMALINE	7.3
GRAPHITE	0.5 - 1	WAX	0.2
GYPSUM	1.6 - 2	WOOD'S METAL	3
HEMATITE	6	ZINC	2.5
HORNBLLENDE	5.5		

COMPARISON OF HARDNESS VALUES		
MATERIAL	MOHS VALUE	KNOOP VALUE
TALC	1	***
GYPSUM	2	32
CADMIUM	***	37
SILVER	***	60
ZINC	***	119
CALCITE	3	135
FLUORITE	4	163
COPPER	***	163
MAGNESIA	***	370
APATITE	5	430
NICKEL	***	557
GLASS (SODA LIME)	***	530
FELDSPAR (ORTHOCLASE)	6	560
QUARTZ	7	820
CHROMIUM	***	935
ZIRCONIA	***	1160
BERYLLIA	***	1250
TOPAZ	8	1340
GARNET	***	1360
TUNGSTEN CARBIDE ALLOY	***	1400 - 1800
ZIRCONIUM BORIDE	***	1550
TITANIUM NITRIDE	9	1800
TUNGSTEN CARBIDE	***	1880
TANTALUM CARBIDE	***	2000
ZIRCONIUM CARBIDE	***	2100
ALUMINA	***	2100

<b>BERYLLIUM CARBIDE</b>	<b>***</b>	<b>2410</b>
<b>TITANIUM CARBIDE</b>	<b>***</b>	<b>2470</b>
<b>SILICON CARBIDE</b>	<b>***</b>	<b>2480</b>
<b>ALUMINUM BORIDE</b>	<b>***</b>	<b>2500</b>
<b>BORON CARBIDE</b>	<b>***</b>	<b>2750</b>
<b>DIAMOND</b>	<b>10</b>	<b>7000</b>