

INDUSTRIAL GARNET STATISTICS
By David A. Buckingham and Donald W. Olson
 [All values in metric tons (t) unless otherwise noted]
 Last modification: April 7, 2003

Year	Production	Sold or used	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	2,890					2,900	42.7	840	
1901	4,030					4,000	39.2	770	
1902	3,560					3,600	37.3	700	
1903	3,580					3,600	37.0	670	
1904	3,500					3,500	33.6	610	
1905	4,580					4,600	32.3	590	
1906	4,220					4,200	37.2	680	
1907	6,400					6,400	33.1	580	
1908	1,810					1,800	35.7	650	
1909	2,700					2,700	38.0	690	
1910	3,460					3,500	32.8	580	
1911	3,700					3,700	32.9	580	
1912	4,490					4,500	36.4	620	
1913	4,820					4,800	38.1	628	4,820
1914	3,840					3,800	37.9	618	3,840
1915	3,900					3,900	35.8	577	3,900
1916	5,600					5,600	37.3	558	5,600
1917	4,530					4,500	43.8	558	4,530
1918	4,260					4,300	58.3	630	4,260
1919	4,490					4,500	69.2	652	5,290
1920	4,970					5,000	87.4	712	5,170
1921	2,770					2,800	94.3	859	2,770
1922	6,400					6,400	88.6	859	9,800
1923	8,170					8,200	84.3	804	13,900
1924		7,520	1,020			8,500	89.6	854	12,500
1925		7,650	2			7,700	93.2	868	11,400
1926		5,800	0			5,800	90.3	831	5,800
1927		5,750	0			5,800	91.1	854	
1928	6,000		2			6,000	76.5	729	
1929	5,410		0			5,400	80.5	767	
1930	4,540		0			4,500	69.2	675	
1931	2,670		2			2,700	72.2	774	
1932	1,770		5			1,800	83.3	992	
1933	2,540		0			2,500	88.7	1,110	
1934	2,350		0			2,400	91.4	1,110	
1935		2,780	0			2,800	92.4	1,100	
1936	3,470		0			3,500	91.2	1,070	
1937		4,410	0			4,400	86.7	982	
1938		2,420	2			2,400	79.2	916	
1939		3,680	0			3,700	75.7	887	
1940		4,280	0			4,300	60.6	705	
1941		4,990				5,000	74.5	826	
1942		3,950				4,000	75.9	759	
1943	5,380					5,400	79.7	751	
1944			0			5,500	72.7	673	
1945	5,720		3			5,700	65.6	594	
1946	7,020		18			7,000	81.2	679	
1947	7,910		1			7,900	77.6	567	
1948	7,290		1			7,300	80.6	545	
1949	5,970					6,000	84.7	580	
1950	8,440		3			8,400	94.0	636	
1951	12,700					13,000	97.8	613	

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1952	10,300		2			10,000	95.0	584	
1953	9,540					9,500	104	635	
1954		12,900				13,000	75.5	458	
1955		10,700				10,700	111	675	
1956		8,900	2			8,890	121	725	
1957		8,870	2			8,890	122	708	
1958		11,200				11,200	77.9	439	
1959		13,200	2			13,200	91.6	513	
1960		9,550				9,530	103	567	11,800
1961		10,900				10,900	94.7	516	13,400
1962		12,900				12,900	91.2	492	15,300
1963		13,300				13,300	106	565	15,700
1964		14,600	0			14,600	111	584	17,200
1965		17,500	0			17,500	97.9	506	20,000
1966		19,900	0			19,900	105	528	20,700
1967		18,600	0			18,600	99.5	486	19,600
1968		20,100	0			20,100	95.7	448	20,900
1969		18,600	0			18,600	101	448	21,100
1970		17,100	0			17,100	113	475	19,000
1971		17,200	0			17,200	112	451	18,900
1972		17,200	0			17,200	114	445	20,900
1973		20,700	0			20,700	115	422	24,000
1974		22,400	0			22,400	114	377	26,600
1975		15,600	0			15,600	134	406	19,800
1976	23,300	22,300	0			22,300	160	458	26,500
1977	19,900	18,200				18,200	183	492	21,900
1978	18,900	20,000		3,080		16,900	196	490	24,900
1979	19,300	21,100		3,180		18,000	220	494	29,900
1980	24,400	24,100	0	3,450	5,770	20,600	205	406	30,900
1981	23,200	23,200	0	2,970	5,710	20,200	225	403	32,100
1982	24,800	24,200	0	3,080	6,290	21,100	229	387	32,200
1983	27,000	27,500	0	2,900	5,810	24,600	217	355	36,400
1984	26,900	25,100	0	3,080	7,600	22,000	226	355	39,700
1985	33,300	27,800	0	2,900	13,100	24,900	220	333	49,100
1986	24,300	28,900	363	4,990	12,700	24,300	234	348	45,100
1987	38,400	35,800	2,720	4,990	7,010	33,500	216	310	79,700
1988	42,500	41,900	4,540	7,980	5,440	38,400	266	366	94,800
1989	42,600	41,300	5,000	9,720	5,440	36,600	236	310	92,100
1990	47,000	45,900	5,000	10,000	2,210	44,200	257	321	108,000
1991	50,900	48,100	5,000	10,000	11,100	44,000	270	323	108,000
1992	54,100	46,100	12,100	7,600	8,640	45,700	282	328	106,000
1993	44,000	51,500	12,200	11,400	10,000	44,800	243	274	120,000
1994	44,700	41,100	6,000	10,000	5,000	43,600	260	286	101,000
1995	46,300	39,900	5,000	9,000	5,900	38,000	253	271	133,000
1996	60,900	46,200	8,000	13,000	14,600	34,500	242	251	173,000
1997	64,900	53,600	11,000	11,000	19,900	46,300	233	237	215,000
1998	74,000	51,900	20,000	12,000	39,900	39,900	243	243	300,000
1999	60,700	43,900	12,000	10,000	46,700	39,100	264	258	214,000
2000	60,200	51,300	23,000	10,000	47,200	63,800	273	258	291,000

Industrial Garnet Worksheet Notes

Data Sources

Sources of data for the industrial garnet worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); and the Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were either not available or were withheld in order to avoid disclosing proprietary data.

Production

Data are crude industrial garnet production. For the year 1944, data were withheld in order to avoid disclosing proprietary data. Production data were not available for the years 1924–27, 1935, 1937–42, and 1954–75. Sold or used data were substituted when production data were not available. Data are from the MR and the MYB.

Sold or Used

Datum for the year 1944 was withheld in order to avoid disclosing proprietary data. Sold or used data were not available for the years 1900–23, 1928–34, 1936, 1943, and 1945–53. Data are from the MR and the MYB.

Imports

Import data were first reported in 1924, however value data was reported for imports in some prior years. Import data for the years 1924–40, 1944–48, 1950, 1952, 1956–57, 1959, and 1988–2000 are from the MR and the MYB. Import data for the years 1964–87 are from the MCS. Tonnage data were not available for all other years.

Exports

The United States is generally a net exporter of industrial garnet. Export data were not reported prior to 1977. Export data for the years 1978–87 are from the MCS. Data for the years 1988–2000 are from the MYB.

Stocks

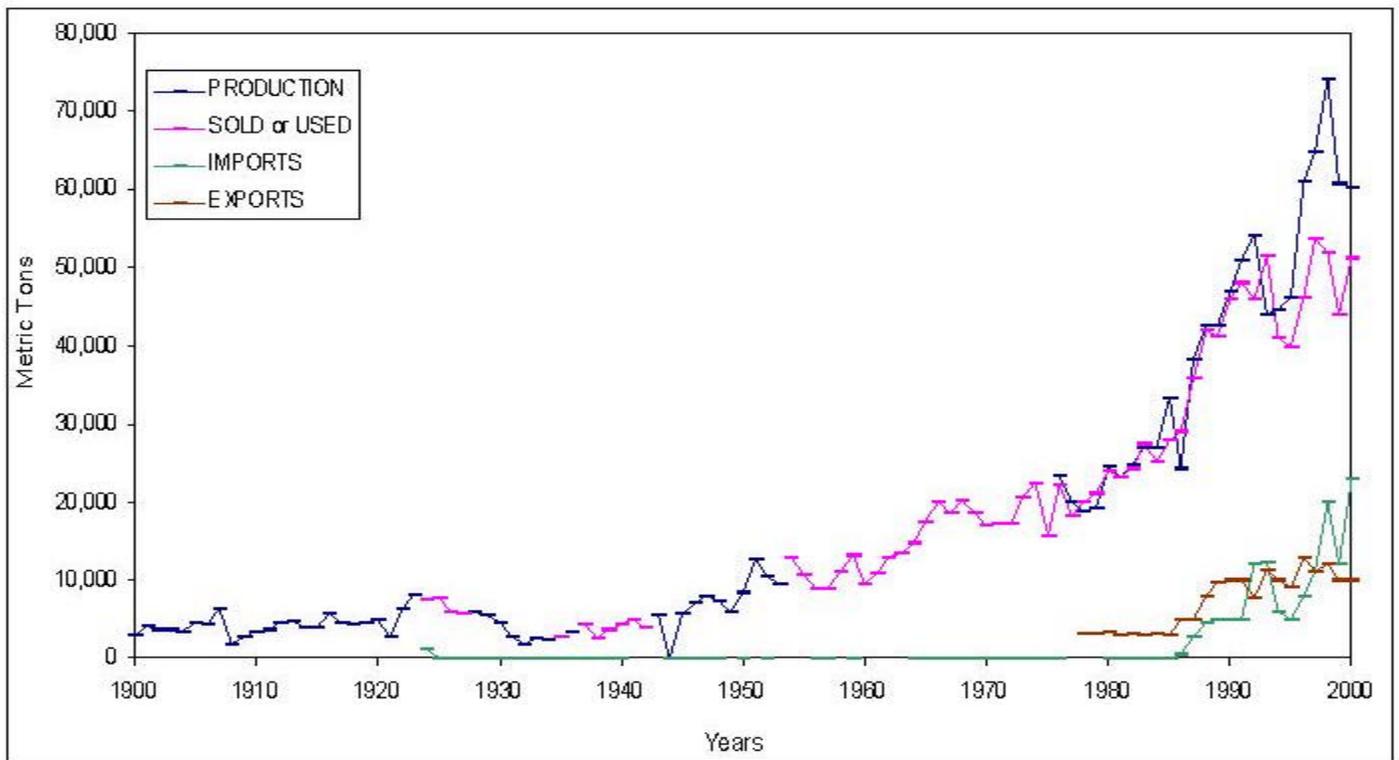
Stock data were not reported prior to 1980. Stock data for the years 1980–2000 represent the quantity of industrial garnet that was held within domestic producer stockpiles. Data are from the MCS.

Apparent Consumption

Apparent consumption was estimated using production data for the years 1900–23, 1941–43, 1949, 1951, and 1953–54, and rounded to two significant figures. Where data for exports and imports were not available they were assumed to be zero for the calculation of apparent consumption. A graph “INDUSTRIAL GARNET STATISTICS” shown below, illustrates that exports and imports were relatively insignificant compared to production, until the late 1970’s, which validates the assumption that production is approximately equal to apparent consumption for the years noted. Data for the years 1924–40, 1945–48, 1950, and 1952 were estimated using the following equation:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{STOCK CHANGES.}$$

Production data were withheld, import data are zero, and export data were not available for the year 1944. Apparent consumption data for the year 1944 is estimated with interpolation based on apparent consumption data from the years 1943 and 1945. Apparent consumption estimates were rounded to two significant figures. Apparent consumption data for the years 1955–2000 are from the CDS and the MCS.



INDUSTRIAL GARNET STATISTICS

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) apparent consumption in current dollars. Unit value was based on the production value for the years 1900–23, 1928–34, 1936, 1943, and 1945–53. Unit value for the years 1924–27, 1935, 1937–42, and 1954–2000 was based on the sold or used value data. Unit value datum was withheld for the year 1944 in order to avoid disclosing proprietary data. Unit value datum was estimated for the year 1944 with interpolation using unit value data for the years 1943 and 1945.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

World production data for the years 1900–12 and 1927–59 were not available. World production data for the years 1913–26 and 1995–2000 are from the MR and the MYB. World production data for the years 1960–94 are from the MCS.

References

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- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
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For more information, please contact:

Donald W. Olson
USGS Industrial Garnet Commodity Specialist
(703) 648-7721
dolson@usgs.gov

David A. Buckingham
Minerals and Materials Analysis Section, USGS
(303) 236-8747 x 239
buck@usgs.gov