## Cast Bronze Alloys Hardness Ratings



|         |                            |                     | TYPICAL OR         |          |
|---------|----------------------------|---------------------|--------------------|----------|
| UNS NO. | DESIGNATION                | HARDNESS TYPE       |                    | HARDNESS |
|         |                            |                     | MINIMUM            |          |
| C94300  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 45       |
| C94100  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 50       |
| C84400  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C84800  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C89831  | FEDERALLOY                 | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C89844  | FEDERALLOY                 | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C93800  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C97300  | LEADED NICKEL BRONZE       | BRINELL 500 Kg LOAD | TYPICAL            | 55       |
| C83600  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C83800  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C84200  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C89833  | FEDERALLOY                 | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C93400  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C93500  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C93700  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 60       |
| C93900  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 63       |
| C89835  | FEDERALLOY                 | BRINELL 500 Kg LOAD | TYPICAL            | 65       |
| C92200  | LEADED TIN BRONZE          | BRINELL 500 Kg LOAD | TYPICAL            | 65       |
| C93200  | LEADED TIN BRONZE          | BRINELL 500 Kg LOAD | TYPICAL            | 65       |
| C93600  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 65       |
| C89320  | BISMUTH TIN BRONZE         | BRINELL 500 Kg LOAD | TYPICAL            | 70       |
| C90300  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 70       |
| C92300  | LEADED TIN BRONZE          | BRINELL 500 Kg LOAD | TYPICAL            | 70       |
| C92800  | LEADED TIN BRONZE          | ROCKWELL "B" 72-82  | MINIMUM            | 72       |
| C89325  | FEDERALLOY                 | BRINELL 500 Kg LOAD | TYPICAL            | 73       |
| C85700  | LEADED RED BRASS           | BRINELL 500 Kg LOAD | TYPICAL            | 75       |
| C90500  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 75       |
| C92900  | LEADED NICKEL - TIN BRONZE | BRINELL 500 Kg LOAD | TYPICAL            | 75       |
| C92700  | LEADED TIN BRONZE          | BRINELL 500 Kg LOAD | TYPICAL            | 77       |
| C92500  | NICKEL-PROSPHOR            | BRINELL 500 Kg LOAD | TYPICAL            | 80       |
| C94000  | HIGH-LEADED TIN BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 80       |
| C94800  | LEADED NICKEL - TIN BRONZE | BRINELL 500 Kg LOAD | TYPICAL            | 80       |
| C97600  | LEADED NICKEL BRONZE       | BRINELL 500 Kg LOAD | TYPICAL            | 85       |
| C91600  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 85       |
| C94700  | NICKEL - TIN BRONZE        | BRINELL 500 Kg LOAD | TYPICAL            | 95       |
| C91700  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 102      |
| C87850  | ECO BRASS                  | BRINELL 500 Kg LOAD | MINIMUM            | 103      |
| C91000  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 105      |
| C95300  | ALUMINUM BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 120      |
| C95200  | ALUMINUM BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 125      |
| C86500  | MAGANESE BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 130      |
| C97800  | LEADED NICKEL BRONZE       | BRINELL 500 Kg LOAD | TYPICAL            | 130      |
| C91100  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 135      |
| C99500  | SPECIAL ALLOY              | BRINELL 500 Kg LOAD | TYPICAL            | 145      |
| C95800  | NICKEL-ALUMINUM BRONZE     | BRINELL 500 Kg LOAD | TYPICAL            | 159      |
| C91300  | HIGH TIN BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 160      |
| C95400  | ALUMINUM BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 170      |
| C95410  | ALUMINUM BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 176      |
| C86200  | MAGANESE BRONZE            | BRINELL 500 Kg LOAD | TYPICAL            | 180      |
| C95500  | NICKEL - ALUMINUM BRONZE   | BRINELL 500 Kg LOAD | TYPICAL            | 190      |
| C86300  | MAGANESE BRONZE            | BRINELL 500 Kg LOAD | TYPICAL<br>MINIMUM | 223      |
| C95900  | ALUMINUM BRONZE            | BRINELL 500 Kg LOAD |                    | 241      |
| C95520  | NICKEL-ALUMINUM BRONZE     | BRINELL 500 Kg LOAD | MINIMUM            | 262      |

