# Chemical Composition and Mechanical / Physical Properties Of En-1, En-1A & En-1B With Books

En1 Is A British Standard Grade. En-1 Comes From British Standa / BS 970. This Is A bright Mild Steel. According to **Bs 970/1955**. En-1 has two parts. (1. En-1 A And 2. En-1B)

1. En – 1A
2. En – 1B

En1A has 5 (Five) Chemical Elements. There Normalized Conditions For Mechanical / Physical Properties.

Also En1B has 5 (Five) Chemical Elements. And there Normalized Conditions For Mechanical / Physical Properties.

## Chemical Composition For En-1A Bright Mild Steel

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| --- | --- |
| **Chemical Elements** | **SPECIFIED VALUE FOR EN 1A** |
| Carbon (C) | 0.07 To 0.15 % |
| Manganese (Mn) | 0.80 To 1.20% |
| Silicon (Si) | 0.10 % (Max.) |
| Sulphur (S) | 0.20 To 0.30% |
| Phosphorus (P) | 0.07 % (Max.) |

## Mechanical / Physical Properties For En-1A Bright Mild Steel

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| --- | --- |
| **Physical Properties** | **SPECIFIED VALUE FOR EN 1A** |
| **Tensile Strength**  **Tons/Sq.in( Min.)** | **32 Tons/Sq.in( Min.)**  Note: Here we provided maximum value due to unclear.  We also provided the actual books page. You can check if you need. |
| **Yield Stress**  **Tons/Sq.in( Min.)** | Nil |
| **Percentage Elongation** | 10% |

## Chemical Composition For En-1B Bright Mild Steel

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| **Chemical Elements** | **SPECIFIED VALUE FOR EN 1A** |
| Carbon (C) | 0.07 To 0.15 % |
| Manganese (Mn) | 1.00 To 1.40% |
| Silicon (Si) | 0.10 % (Max.) |
| Sulphur (S) | 0.30 To 0.60% |
| Phosphorus (P) | 0.06 % (Max.) |

## Mechanical / Physical Properties For En-1B Bright Mild Steel

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| **Physical Properties** | **SPECIFIED VALUE FOR EN 1A** |
| **Tensile Strength**  **Tons/Sq.in( Min.)** | **27 Tons/Sq.in( Min.)**  Note: Here we provided maximum value due to unclear.  We also provided the actual books page. You can check if you need. |
| **Yield Stress**  **Tons/Sq.in( Min.)** | Nil |
| **Percentage Elongation** | 10% |

## Equivalent specification / Related specification As Per BS 970/1955

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| --- | --- |
| **En No.** | En1A |
| **America** | S.A.E. 1113 And A.I.S.I. C1113 |
| **France** | A.F.N.O.R. 12 MF 4 |
| **Germany** | Werkstoff No.: 1.0806 Name : 9S27 DIN:1651 |