

# Material: SAE J403 | SAE J1397 UNS G10550 - Hot Rolled

## Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, To Wire Rods, Plates, Strip, Sheets and Tubing

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** SAE J403 | SAE J1397 UNS G10550 - Hot Rolled Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, Wire Rods, Plates, Strip, Sheets and Tubing

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries

**Grade Belongs to the Industry:** Bars, Wire Rods, Plates, Strip, Sheets and Tubing

| Chemical Composition |      |               | Heat Treatment  |          |
|----------------------|------|---------------|---|----------|
| Carbon               | C %  | 0.500 - 0.600 | As Raw or Annealing or Normalizing or Hardening and Tempering |          |
| Manganese            | Mn % | 0.600 - 0.900 |   |          |
| Phosphorus           | P %  | 0.030 max.    |   |          |
| Sulphur              | S %  | 0.050 max.    |   |          |
| Iron                 | Fe % | Balance       |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
| -                    | -    | -             |   |          |
|                      |      |               | Mechanical Properties   |          |
| -                    | -    | -             | Tensile Strength in Mpa                                       | 650 min. |
| -                    | -    | -             | Yield Strength in Mpa   | 360 min. |
| -                    | -    | -             | Elongation in %   | 12 min.  |
| -                    | -    | -             | Reduction of Area in %  | 30 min.  |
| -                    | -    | -             | Hardness in HB  | 192 max. |
| -                    | -    | -             | Impact in Joule   | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| 1055                  | SAE      | USA     | Strip and Steel              |
| 1055                  | AISI     | USA     | Steel and Bar                |
| A 830 G10550          | ASTM     | USA     | Plate and Steel              |
| A 713 Grade 1055      | ASTM     | USA     | Wire                         |
| A 684 Grade 1055      | ASTM     | USA     | Strip and Steel              |
| A 713 G10550          | ASTM     | USA     | Steel and Wire               |
| A 682 G10550          | ASTM     | USA     | Strip and Steel              |

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