



## Material - ASTM A 713 Grade 1078

### Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled Steel and Wire

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A 713 Grade 1078 Carbon Steel Compositions For Forging To Hot-Rolled Steel and Wire

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

Grade Belongs to the Industry - Steel and Wire

| Chemical Composition |      |               | Heat Treatment  |           |
|----------------------|------|---------------|---|-----------|
| Carbon               | C %  | 0.720 - 0.850 | As Raw or Annealing or Normalizing or Hardening and Tempering |           |
| Manganese            | Mn % | 0.300 - 0.600 |   |           |
| Phosphorus           | P %  | 0.040 max.    |   |           |
| Sulphur              | S %  | 0.050 max.    |   |           |
| Iron                 | Fe % | Balance       |   |           |
| -                    | -    | -             |   |           |
| -                    | -    | -             |   |           |
| -                    | -    | -             |   |           |
| -                    | -    | -             |   |           |
| -                    | -    | -             |   |           |
|                      |      |               | Mechanical Properties   |           |
|                      |      |               | Tensile Strength in Mpa                                       | 650 - 690 |
|                      |      |               | Yield Strength in Mpa   | 380 min.  |
|                      |      |               | Elongation in %   | 10 min.   |
|                      |      |               | Reduction of Area in %  | 30 - 40   |
|                      |      |               | Hardness in HB  | 192 - 207 |
|                      |      |               | Impact in Joule   | -         |

| Cross Reference Table |          |         |   |
|-----------------------|----------|---------|---|
| Material              | Standard | Country | Grade Belong to the Industry                      |
| G10780                | UNS      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1078                  | SAE      | USA     | Steel   |
| 1078                  | AISI     | USA     | Steel and Bar                                     |
| A 830 G10780          | ASTM     | USA     | Plate and Steel                                   |
| A 713 G10780          | ASTM     | USA     | Steel and Wire                                    |
| A 576 10L78           | ASTM     | USA     | Steel and Bar                                     |
| A 830 1078            | ASTM     | USA     | Plate and Steel                                   |

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

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