

## 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       |                                                               |           |
| -                    | -    | -             | <b>Mechanical Properties</b>                                  |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
| -                    | -    | -             |                                                               |           |
|                      |      |               | 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                                   |

**For any further inquiries, please do not hesitate to contact us. You may visit our website at [AMTECH TECHNOCAST PVT. LTD.](http://AMTECH TECHNOCAST PVT. LTD.), call us at [+91 9879817994](tel:+919879817994), or email us at [manish@amtechtechnocast.com](mailto:manish@amtechtechnocast.com)**

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