

## Material - ASTM A 513 Grade 1017

**Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Tubing** 

**Group - Ferrous Mild Steel Alloys** 

Sub Group - ASTM A 513 Grade 1017 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Tubing

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Tubing

| Chemical Composition |      |               | Heat Treatment   |                         |
|----------------------|------|---------------|--|-------------------------|
| Carbon               | C %  | 0.150 - 0.200 |  |                         |
| Manganese            | Mn % | 0.300 - 0.600 | As Raw or Annealing or Normalizing or Hardening and<br>Tempering |                         |
| Phosphorus           | Р%   | 0.035 max.    |  | dizing or Hardaning and |
| Sulphur              | S %  | 0.035 max.    |  | •                       |
| Iron                 | Fe % | Balance       |  |                         |
| -                    | -    | -             |  |                         |
| -                    | -    | -             |  |                         |
| -                    | -    | -             |  |                         |
| -                    | 7    | -             | Mechanical Properties  |                         |
| -                    | -    | -             | Tensile Strength in Mpa  | 370 - 410               |
| -                    | -    | -             | Yield Strength in Mpa  | 200 min.                |
| -                    | -    | -             | Elongation in %  | 18 min.                 |
| -                    | -    | -             | Reduction of Area in %   | 40 - 50                 |
| -                    | -    | -             | Hardn <mark>ess in HB</mark>                                     | 105 - 116               |
| -                    | -    |               | Impac <mark>t in Joule</mark>                                    | -                       |

| Cross Reference Table |          |         |                              |  |  |
|-----------------------|----------|---------|------------------------------|--|--|
| Material              | Standard | Country | Grade Belong to the Industry |  |  |
| G10170                | UNS      | USA     | Bars, Wire Rods and Tubing   |  |  |
| 1017                  | SAE      | USA     | Steel and Bar                |  |  |
| 1017                  | AISI     | USA     | Tubing                       |  |  |
| A 1040 1017           | ASTM     | USA     | Steel                        |  |  |
| A 29 1017             | ASTM     | USA     | Steel and Bar                |  |  |
| A 29 M1017            | ASTM     | USA     | Steel and Bar                |  |  |
| A 510 1017            | ASTM     | USA     | Wire Rod and Round Wire      |  |  |

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

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