



## Material - ASTM A 29 1074

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

## **Group - Ferrous Mild Steel Alloys**

Sub Group - ASTM A 29 107 Carbon Steel Compositions For Forging To Hot-Rolled Steel and Bar Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Steel and Bar

| Chemical Composition |      |                | Heat Treatment   |                          |
|----------------------|------|----------------|--|--------------------------|
| Carbon               | C %  | 0.700 - 0.800  |  |                          |
| Manganese            | Mn % | 0.500 - 0.800  | As Raw or Annealing or Normalizing or Hardening and<br>Tempering |                          |
| Phosphorus           | P %  | 0.040 max.     |  | alizing or Hardoning and |
| Sulphur              | S %  | 0.050 max.     |  | с С                      |
| Copper               | Cu % | 0.200 Min.     |  |                          |
| Boron                | В %  | 0.0005 - 0.003 |  |                          |
| Aluminium            | Al % | 0.020 min.     |  |                          |
| Niobium              | Nb % | 0.015 min.     |  |                          |
| Silicon              | Si % | 0.100 max.     | Mechanical Properties  |                          |
| Vanadium             | V %  | 0.020 min.     | Tensile Strength in Mpa  | 650 - 720                |
| Iron                 | Fe % | Balance        | Yield Strength in Mpa  | 400 min.                 |
| -                    | -    | -              | Elongation in %  | 10 min.                  |
| -                    | -    | -              | Reduction of Area in %   | 30 - 40                  |
| -                    | -    | -              | Hardn <mark>ess in HB</mark>                                     | 192 - 217                |
| -                    | -    | -              | Impa <mark>ct in Joule</mark>                                    | -                        |

| Cross Reference Table |          |                                      |   |  |
|-----------------------|----------|--------------------------------------|---|--|
| Material              | Standard | Country Grade Belong to the Industry |   |  |
| G10740                | UNS      | USA                                  | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |  |
| 1074                  | SAE      | USA                                  | Steel   |  |
| 1074                  | AISI     | USA                                  | Steel and Bar                                     |  |
| A 1040 1074           | ASTM     | USA                                  | Steel   |  |
| A 510 1074            | ASTM     | USA                                  | Steel   |  |
| A 682 G10740          | ASTM     | USA                                  | Steel and Strip                                   |  |
| A 682 Grade 1074      | ASTM     | USA                                  | Steel and Strip                                   |  |

## 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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