



## Material - ASTM A 29 1043

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

**Group - Ferrous Mild Steel Alloys**

**Sub Group - ASTM A 29 1043 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bar**

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

**Grade Belongs to the Industry - Bar**

| Chemical Composition |      |                | Heat Treatment  |  |
|----------------------|------|----------------|---|--|
| Carbon               | C %  | 0.400 - 0.470  | As Raw or Annealing or Normalizing or Hardening and Tempering   |  |
| Manganese            | Mn % | 0.700 - 1.000  |   |  |
| Phosphorus           | P %  | 0.040 max.     |   |  |
| Sulphur              | S %  | 0.050 max.     |   |  |
| Boron                | B %  | 0.0005 - 0.003 |   |  |
| Copper               | Cu % | 0.200 max.     |   |  |
| Silicon              | Si % | 0.100 max.     |   |  |
| Aluminium            | Al % | 0.020 max.     |   |  |
| Niobium              | Nb % | 0.015 max.     |   |  |
| Vanadium             | V %  | 0.020 max.     |   |  |
| Iron                 | Fe % | Balance        | <b>Mechanical Properties</b><br>Tensile Strength in Mpa      570 - 630<br>Yield Strength in Mpa      310 min.<br>Elongation in %      12 min.<br>Reduction of Area in %      35 - 45<br>Hardness in HB      163 - 179<br>Impact in Joule      - |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |
| -                    | -    | -              |   |  |

| Cross Reference Table |          |         |   |
|-----------------------|----------|---------|---|
| Material              | Standard | Country | Grade Belong to the Industry                      |
| G10430                | UNS      | USA     | Bars, Wire Rods, Plates, Strip, Sheets and Tubing |
| 1043                  | SAE      | USA     | Steel   |
| 1043                  | AISI     | USA     | Bar   |
| A 1040 1043           | ASTM     | USA     | Steel   |
| A 510 1043            | ASTM     | USA     | Wire Rod  |
| A 576 10L43           | ASTM     | USA     | Steel and Bar                                     |
| A 830 1043            | 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)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.