



## Material - BS 243 - 430

### Standard Specification for Steel Forgings for Pressure Purposes

Group - Ferrous Mild Steel Alloys

Sub Group - BS 243 - 430 Steel Forgings for Pressure Purposes

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

Grade Belongs to the Industry - Forging

| Chemical Composition |      |               | Heat Treatment                                   |           |
|----------------------|------|---------------|--|-----------|
| Carbon               | C %  | 0.120 - 0.200 | Normalising + Tempering or Hardening + Tempering |           |
| Silicon              | Si % | 0.150 - 0.400 |  |           |
| Manganese            | Mn % | 0.500 - 0.800 |  |           |
| Phosphorus           | P %  | 0.030 max.    |  |           |
| Sulphur              | S %  | 0.025 max.    |  |           |
| Chromium             | Cr % | 0.250 max.    |  |           |
| Nickel               | Ni % | 0.400 max.    |  |           |
| Molybdenum           | Mo % | 0.250 - 0.350 |  |           |
| Copper               | Cu % | 0.300 max.    |  |           |
| Iron                 | Fe % | Balance       | Mechanical Properties                            |           |
| -                    | -    | -             | Tensile Strength in Mpa                          | 430 - 580 |
| -                    | -    | -             | Yield Strength in Mpa                            | 250 min.  |
| -                    | -    | -             | Elongation in %                                  | 19 min.   |
| -                    | -    | -             | Reduction of Area in %                           | -         |
| -                    | -    | -             | Hardness in BHN                                  | -         |
| -                    | -    | -             | Impact in Joule                                  | 27 J @ RT |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| SA-352 Grade LC1      | ASME     | USA     | Casting                      |
| 4422                  | AISI     | USA     | Bar                          |
| G20Mo5                | DIN      | Germany | Casting                      |
| J12522                | UNS      | USA     | Casting                      |
| SCPL 11               | JIS      | Japan   | Casting                      |
| G18Mo5                | UNI      | Italy   | Casting                      |
| A352 LC1              | ASTM     | USA     | Casting                      |

**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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