

# Material: BS EN 10213 G17CrMo9-10

## Standard Specification for Steel Castings for Pressure Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** BS EN 10213 G17CrMo9-10 Steel Castings for Pressure Purposes

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

**Grade Belongs to the Industry:** Plate, Tubes and Forging

| Chemical Composition |      |               | Heat Treatment                                                                                                                                                                                        |  |
|----------------------|------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Carbon               | C %  | 0.130 - 0.200 | Normalizing or Quenching or Solution Annealing                                                                                                                                                        |  |
| Silicon              | Si % | 0.600 max.    |                                                                                                                                                                                                       |  |
| Manganese            | Mn % | 0.500 - 0.900 |                                                                                                                                                                                                       |  |
| Phosphorus           | P %  | 0.020 max.    |                                                                                                                                                                                                       |  |
| Sulphur              | S %  | 0.020 max.    |                                                                                                                                                                                                       |  |
| Chromium             | Cr % | 2.000 - 2.500 |                                                                                                                                                                                                       |  |
| Molybdenum           | Mo % | 0.900 - 1.200 |                                                                                                                                                                                                       |  |
| Nickel               | Ni % | 0.400 max.    |                                                                                                                                                                                                       |  |
| Copper               | Cu % | 0.300 max.    |                                                                                                                                                                                                       |  |
| Vanadium             | V %  | 0.050 max.    |                                                                                                                                                                                                       |  |
| Iron                 | Fe % | Balance       | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 400 min.<br>Yield Strength in Mpa 355 min.<br>Elongation in % -<br>Reduction of Area in % -<br>Hardness in BHN -<br>Impact in Joule 40 J @ RT |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |
| -                    | -    | -             |                                                                                                                                                                                                       |  |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| G17CrMo9-10           | ISO      | International | Casting                      |
| 1.7379                | ISO      | International | Casting                      |
| 15 CD9.10-M           | AFNOR NF | France        | Pump, Valve and Fitting      |
| SCPH 32               | JIS      | Japan         | Casting                      |
| A 217 Grade WC9       | ASTM     | USA           | Casting                      |
| A 217 J21890          | ASTM     | USA           | Casting                      |
| SCPH 32-CF            | JIS      | Japan         | Casting                      |

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