

# Material: ISO 4954 C8C

## Standard Specification for Carbon Steel Wire Rods for Cold Heading and Cold Forging

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ISO 4954 C8C Carbon Steel Wire Rods for Cold Heading and Cold Forging

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

**Grade Belongs to the Industry:** Wire Rod and Forging

| Chemical Composition |      |               |
|----------------------|------|---------------|
| Carbon               | C %  | 0.060 - 0.100 |
| Silicon              | Si % | 0.100 max.    |
| Manganese            | Mn % | 0.250 - 0.450 |
| Phosphorus           | P %  | 0.020 max.    |
| Sulphur              | S %  | 0.025 max.    |
| Aluminium            | Al % | 0.020 - 0.060 |
| Chromium             | Cr % | 0.300 max.    |
| Copper               | Cu % | 0.300 max.    |
| Molybdenum           | Mo % | 0.100 max.    |
| Nickel               | Ni % | 0.300 max.    |
| Iron                 | Fe % | Balance       |
| -                    | -    | -             |
| -                    | -    | -             |
| -                    | -    | -             |
| -                    | -    | -             |

| Heat Treatment  |
|---|
| As Raw or Normalizing or Annealing or Hardening and Tempering |

| Mechanical Properties   |          |
|-------------------------|----------|
| Tensile Strength in Mpa | 490 max. |
| Yield Strength in Mpa   | -        |
| Elongation in %         | -        |
| Reduction of Area in %  | 63 min.  |
| Hardness in BHN         | -        |
| Impact in Joule         | -        |

| Cross Reference Table |          |          |                              |
|-----------------------|----------|----------|------------------------------|
| Material              | Standard | Country  | Grade Belong to the Industry |
| SWRCH 8A              | JIS      | Japan    | Wire Rod and Forging         |
| SWCH 8A               | JIS      | Japan    | Wire Rod and Forging         |
| SWRCH8A               | MS       | Malaysia | Wire Rod and Forging         |
| SWRCH8A               | KS       | Korea    | Wire Rod and Forging         |
| -                     | -        | -        | -                            |
| -                     | -        | -        | -                            |
| -                     | -        | -        | -                            |

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