

## Material: KS D 3592 SWRCH10K

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

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** KS D 3592 SWRCH10K 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 |      |               | Heat Treatment                                                |          |
|----------------------|------|---------------|---------------------------------------------------------------|----------|
| Carbon               | C %  | 0.080 - 0.130 | As Raw or Normalizing or Annealing or Hardening and Tempering |          |
| Silicon              | Si % | 0.100 - 0.350 |                                                               |          |
| Manganese            | Mn % | 0.300 - 0.600 |                                                               |          |
| Phosphorus           | P %  | 0.030 max.    |                                                               |          |
| Sulphur              | S %  | 0.035 max.    |                                                               |          |
| Chromium             | Cr % | 0.200 max.    |                                                               |          |
| Copper               | Cu % | 0.300 max.    |                                                               |          |
| Nickel               | Ni % | 0.200 max.    |                                                               |          |
| Iron                 | Fe % | Balance       | Mechanical Properties                                         |          |
| -                    | -    | -             | Tensile Strength in Mpa                                       | 520 max. |
| -                    | -    | -             | Yield Strength in Mpa                                         | -        |
| -                    | -    | -             | Elongation in %                                               | -        |
| -                    | -    | -             | Reduction of Area in %                                        | 58 min.  |
| -                    | -    | -             | Hardness in BHN                                               | -        |
| -                    | -    | -             | Impact in Joule                                               | -        |

| Cross Reference Table |          |               |                              |
|-----------------------|----------|---------------|------------------------------|
| Material              | Standard | Country       | Grade Belong to the Industry |
| SWRCH 10K             | JIS      | Japan         | Wire Rod and Forging         |
| SWCH 10K              | JIS      | Japan         | Wire Rod and Forging         |
| SWRCH10K              | MS       | Malaysia      | Wire Rod and Forging         |
| C10GC                 | ISO      | International | Wire Rod and Forging         |
| -                     | -        | -             | -                            |
| -                     | -        | -             | -                            |
| -                     | -        | -             | -                            |

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