

## Material: IS 1545 CuNi10Fe1-HD

### Standard Specification for Solid drawn Copper and Copper Alloy Tubes for Condenser and Heat Exchangers

**Group:** Non-Ferrous Copper Alloy

**Sub Group:** IS 1545 Solid drawn Copper and Copper Alloy Tubes for Condenser and Heat Exchangers

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

**Belongs to the Industry:** Tube

| Chemical Composition |           |                | Heat Treatment                                                                                                                                                                               |  |
|----------------------|-----------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Iron                 | Fe %      | 1.000 - 1.8000 | As Drawn or Annealing or Half Hardening or Tempering & Annealing or Annealing                                                                                                                |  |
| Manganese            | Mn %      | 0.500 - 1.000  |                                                                                                                                                                                              |  |
| Nickel               | Ni %      | 9.000 - 11.000 |                                                                                                                                                                                              |  |
| Other                | Ot%       | 0.300 max.     |                                                                                                                                                                                              |  |
| Lead                 | Pb %      | 0.050 max.     |                                                                                                                                                                                              |  |
| Zinc                 | Zn %      | 0.500 max.     |                                                                                                                                                                                              |  |
| Cu + Ag              | Cu% + Ag% | Balance        |                                                                                                                                                                                              |  |
| -                    | -         | -              | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 385 min.<br>Yield Strength in Mpa -<br>Elongation in % -<br>Reduction of Area in % -<br>Hardness in HV 130 min.<br>Impact in Joule - |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |
| -                    | -         | -              |                                                                                                                                                                                              |  |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| CuNi10Fe1             | IS       | India   | Tube                         |
| CuNi10Fe1-O           | IS       | India   | Tube                         |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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Customer Care: +91-99090 45075 Email: [info@icastllp.com](mailto:info@icastllp.com)