

## Material - AFNOR NF CW713R

## Standard Specification for Copper and Copper Alloy Rod for Free Machining Purpose Group - Non Ferrous Copper Alloys

Sub Group - AFNOR NF CW713R Copper and Copper Alloy Rod for Free Machining Purpose Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Rod

| Chemical Composition |      |                 | Heat Treatment                  |             |
|----------------------|------|-----------------|---------------------------------|-------------|
| Aluminium            | Al % | 1.300 - 2.300   |                                 |             |
| Iron                 | Fe % | 1.000 max.      |                                 |             |
| Manganese            | Mn % | 1.500 - 3.000   | As Raw or Solution Heat Treated |             |
| Nickel               | Ni % | 1.000 max.      |                                 | eat Treated |
| Lead                 | Pb % | 0.200 - 0.800   |                                 |             |
| Silicon              | Si % | 0.300 - 1.300   |                                 |             |
| Tin                  | Sn % | 0.400 max.      |                                 |             |
| Other                | Ot % | 0.300 max.      |                                 |             |
| Copper               | Cu % | 57.000 - 59.000 | Mechanical Properties           |             |
| Zinc                 | Zn % | Balance         | Tensile Strength in Mpa         | 540 min.    |
| -                    | -    | -               | Yield Strength in Mpa           | 200 min.    |
| -                    | -    | -               | Elongation in %                 | 5 min.      |
| -                    | -    | -               | Reduction of Area in %          | -           |
| -                    | -    | -               | Hardness in HV                  | 140 - 200   |
| -                    | -    | -               | Impac <mark>t in Joule</mark>   | -           |

| Cross Reference Table |          |                |                              |  |
|-----------------------|----------|----------------|------------------------------|--|
| Material              | Standard | Country        | Grade Belong to the Industry |  |
| CuZn37Mn3Al2PbSi      | DIN      | Germany        | Rod                          |  |
| CuZn37Mn3Al2PbSi      | AFNOR NF | France         | Rod                          |  |
| CuZn37Mn3Al2PbSi      | MSZ      | Hungary        | Rod                          |  |
| CW713R                | MSZ      | Hungary        | Rod                          |  |
| CuZn37Mn3Al2PbSi      | CSN      | Czech Republic | Rod                          |  |
| CW713R                | CSN      | Czech Republic | Rod                          |  |
| CW713R                | DIN      | Germany        | Rod                          |  |

## Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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