

Wire Welding alloys



IMPHY 22 is a low-carbon Nickel-Chromium Molybdenum Tungsten alloy which shows:

- Excellent resistance to general corrosion, pitting, crevice corrosion, intergranular attack and stress-corrosion cracking.
- Optimum resistance to environment where reducing and oxidizing conditions are encountered..

Typical analysis

| C | Mn | Fe | P | S | Si | Cu | Ni | Co | Cr | Mo | V | W |
|-------|-----|---------------|-------|-------|------|-----|-----|-----|------------|--------------|------|------------|
| 0.015 | 0.5 | $\frac{2}{6}$ | <0.02 | <0.01 | 0.08 | 0.5 | Bal | 2.5 | 20 22.5 | 12.5 14.5 | 0.35 | 2.5 3.5 |

Specifications

AWS A5.14 – ERNiCrMo-10 ; UNS N06022 ; Werkstoff Nr 2.4635, Nr 2.4602

Mechanical properties

| Hot rolled and solution annealed | Delivery condition at 20°C | Tensile strength (MPa) | Elongation % | Red. of area % |
|----------------------------------|----------------------------|------------------------|--------------|----------------|
| | | 800 | > 40 | > 60 |

Welding

IMPHY 22 is used for welding of Alloy 22, Alloy 625, Alloy 825, Alloy 926, various corrosion-resistant alloys and molybdenum-containing stainless steels.

IMPHY 22 is useful for dissimilar welding of corrosion-resistant alloys, carbon steels, low-alloys steels and molybdenum-containing stainless steels.

The weld metal has a high strength over a large temperature range.

Typical applications

Cladding of water wall sections and super heaters tubes in waste incineration plants by overlay welding.

Welding of plates, sheets and tubes in the chemical process industry, in flue gas desulphurisation equipment, pollution control equipment for environmental protection

The data enclosed in this document are only given as indicative values and correspond to our standard product. Different specific requirements are subject to discussion and formal approval by Aperam Alloys Imphy. For further information or special request, please contact us.

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