

# TASETO Welding Materials

Ni-Base Alloy Electrodes

For Flux Cored Arc Welding

## GFWHsC - 22

Applications and Characteristics

TASETO GFWHsC-22 is a flux cored wire corresponding to AWS ENiCrMo-10. It is used for welding of HASTELLOY C-22 or overlay welding. Also used for welding of petrochemical and various chemical equipment that is required for the resistibility against oxidizing and reducing acid.

Notes on Usage

\*Only Ar+20%CO<sub>2</sub> is permitted for use as shielding gas.

\*To minimize crater crack, fill craters with filler metal and remove crater crack with grinder.

Chemical Composition of All Weld Metal(%)

|         | C     | Si   | Mn   | P     | S     | Ni  | Cu   | Cr    | Fe   | Mo    | Co   | V    | W    |
|---------|-------|------|------|-------|-------|-----|------|-------|------|-------|------|------|------|
| Typical | 0.018 | 0.20 | 0.32 | 0.008 | 0.002 | Rem | 0.05 | 21.60 | 5.68 | 12.98 | 0.77 | 0.22 | 3.10 |

Mechanical Properties of All Weld Metal

|         | 0.2% Proof Stress<br>(N/mm <sup>2</sup> ) | Tensile Strength<br>(N/mm <sup>2</sup> ) | Elongation<br>(%) |
|---------|---|--|-------------------|
| Typical | 515                                       | 717                                      | 30                |

Corrosion Resistance of All Weld

|         | (Weight loss: g/m <sup>2</sup> ·h)  |                                |                              |
|---------|-------------------------------------|--------------------------------|------------------------------|
|         | 1.5% hydrochloric acid<br>(boiling) | 30% sulfuric acid<br>(boiling) | 30% nitric acid<br>(boiling) |
| Typical | 0.42                                | 0.091                          | 0.032                        |

Sizes Available and Recommended Welding Conditions

| Size<br>(mm) | Flat           |                |                   | Horizontal     |                |                   |
|--------------|----------------|----------------|-------------------|----------------|----------------|-------------------|
|              | Current<br>(A) | Voltage<br>(V) | Speed<br>(mm/min) | Current<br>(A) | Voltage<br>(V) | Speed<br>(mm/min) |
| 1.2          | 160 ~ 190      | 26 ~ 32        | 250 ~ 350         | 130 ~ 160      | 25 ~ 28        | 300 ~ 400         |