

# **GEMET ST 21**

# IDENTIFICATION CLASSIFICATION

Gemet ST21, ECoCr-E AWS/SFA 5.13: ECoCr -E, EN 14700: ECo1, DIN8555: E20-UM-300 -CTZ

#### DESCRIPTION

Basic coated stick electrode for the hardfacing of unalloyed, low-alloyed and high-alloyed steels. The weld metal is heat resistant and shows a good resistance against corrosive media. In the case of friction and sliding wear the alloy has a low friction coefficient against steels. Service temperatures up to 800°C.

## WELD METAL ANALYSIS (RANGE) %

| С        | Cr     | Мо      | Ni    | Со  | Mn      | Si      | Fe      | W       |
|----------|--------|---------|-------|-----|---------|---------|---------|---------|
| 0.15 min | 24 min | 4.5 min | 2 min | Bal | 1.5 max | 2.0 max | 5.0 max | 0.5 max |
| 0.4 max  | 29 max | 6.5 max | 4 max |     |         |         |         |         |

## **MECHANICAL PROPERTIES (RANGE)**

Hardness of Pure Weld Metal 33 HRC

## **TYPICAL APPLICATIONS**

- High heat resistant special alloy with good high temperature strength. The weld metal shows an excellent resistance against mechanical shock.
- This electrode is normally used for the hardfacing of forging dies, punches and hot cutting tools. Hot Trimming dies, valves.
- Suitable for the cladding of sealing surface of valves used in power plants and chemical industry.

**REDRYING :** 300 - 320°C / 2 h of electrodes.

#### **PACKING PARAMETERS**

| Size (mm)   | Length (mm) | Welding<br>Current<br>(A) Polarity =<br>(+) ~ | Packing /<br>Packet (kg) | Packing / Box<br>(kg) |
|-------------|-------------|---|--------------------------|-----------------------|
| 2.5         | 350         | 70 - 110                                      | 2                        | 2 x 5 = 10            |
| 3.15 / 3.20 | 350         | 100 - 140                                     | 2                        | 2 x 5 = 10            |
| 4           | 350         | 140 - 180                                     | 2                        | 2 x 5 = 10            |
| 5           | 350         | 180 - 220                                     | 2                        | 2 x 5 = 10            |