

MONEL

Electrodes MMA [SMAW]

Cast iron

| | | |
|---|-------------------|---|
| CLASSIFICATION: | APPROVALS: | APPLICATION: |
| EN ISO 1071-A : E C NiCu-B1 DIN 8573 : E NiCu BG 12 AWS A-5.15 : E NiCu-B | UDT | Hardfacing and repairing Metallurgy (Steelworks) Mining Shipbuilding&Offshore Agriculture Light construction and hobby |

- Electrode for regeneration and cold welding of cast iron.
- Designed for DC+ polarization welding, which results in a very smooth and even melting of the electrode, smooth bead appearance with easily removable slag and soft and self-penetrating fusion into the regenerated element.
- The electrode does not overheat.
- High resistance to sea water.
- Weld is soft and highly malleable, suitable for hammering.
- The electrode does not contain harmful barium compounds, which makes it safe to the welder.
- Prior to regeneration, it is recommended to clean the element by thorough surface cleaning and degreasing.
- Due to the color, it is used to fill defects in new castings.

Application

Cast iron working in aggressive environments, e.g. brine, sea water, etc. Filling casting defects.

Base material



| Gray cast iron | | Malleable cast irons | | Ductile irons | |
|---------------------------|------------------------|----------------------|--------|---------------|--------|
| DIN EN 1561 | W.Nr | DIN EN 1563 | W.Nr. | DIN EN 1563 | W.Nr. |
| GG10 | 0.6010 | GTS 35-10 | 0.8135 | GGG40 | 0.7040 |
| GG15 | 0.6015 | GTS 45-06 | 0.8145 | GGG50 | 0.7050 |
| GG20 | 0.6020 | GTS 55-04 | 0.8155 | GGG60 | 0.7060 |
| GG25 | 0.6025 | GTS 65-02 | 0.8165 | GGG70 | 0.7070 |
| GG35 | 0.6035 | GTS 70-02 | 0.8170 | GGG80 | 0.7080 |
| Other grades of cast iron | dissimilar connections | buffer layers | | | |

Typical chemical composition %

| | | |
|-----------|-----------|-----------|
| Ni | Cu | Fe |
| 62,0 | 30,0 | 6,00 |

Typical mechanical properties

| | |
|------------------------------------|--|
| Yield strength Re [N/mm2] | 190 |
| Tensile strength Rm [N/mm2] | 300 |
| Elongation A5 [%] | 15 |
| Hardness | 130-160 HB / |
| Heat treatment | For thick elements light heating is recommended. |

| | |
|--------------------------|--|
| Welding current |  |
| Welding positions |  |
| Redrying | 200°C / 1 h |
| Remarks | Preheating is not required for thin castings Thicker materials should be heated to 100-200[°C] Recommendations: Interpass temperature not higher than 100°C. Keep the welding current as low as possible. Cool as soon as possible in the open air. Start welding on the weld, avoid ignition on base material. Select an electrode with the smallest possible diameter. Use the lowest possible amperage. |

Welding parameters and packing

| Ø | Length [mm] | Welding current [A] | Weight of packet [kg] | Weight of carton [kg] | Pcs/1 kg |
|-----|-------------|---------------------|-----------------------|-----------------------|----------|
| 2,5 | 300 / | 50-80 | 1,6 | 9,6 | 56-57 |
| 3,2 | 350 / | 70-110 | 2,0 | 12,0 | 31-32 |
| 4,0 | 350 / | 100-140 | 2,0 | 12,0 | 20 |
| 5,0 | 350 / | 140-170 | 2,0 | 12,0 | 10 |

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