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| Technical data sheet <small>011121MBA</small> | Cored welding wire HARDFACE TLN-O |  |
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CLASSIFICATION

EN 14700: T ZFe1
DIN 8555¹: MF 1-GF-300-P

¹ Former classification replaced by EN 14700

DESCRIPTION

- Low alloy tubular wire for self-shielded metal arc hardfacing
- Used for the repair of rails
- Gives a bainitic deposit with a useful combination of strength, toughness and wear resistance.
- The microstructure is practically unaffected by dilution and remains uniform throughout the deposit.
- Welded under positive polarity, the wire deposits clean beads without spatter and with good penetration and slag removal

APPLICATIONS

HARDFACE TLN-O is used for repair of pearlitic steels typically containing 0.5 – 0.8% carbon.

APPROVALS

DB (82.128.01)

TYPICAL ALL-WELD METAL ANALYSIS

| C | Mn | Si | Cr | Ni | Mo | Fe |
|------|-----|-----|-----|-----|-----|------|
| 0.14 | 1.1 | 0.4 | 1.1 | 2.2 | 0.4 | Bal. |

Structure: bainite

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

The hardness of undiluted weld metal lies in the range 300 – 400 HV, with a mean of less than 350 HV. The first welded layer on 0.7% C pearlitic steel has a typical hardness of 350 HV. The hardness of the heat-affected zone of these steels is below 350 HV when the recommended welding conditions are used.

CONDITIONS OF USE

| Current type | Protection |
|--------------|---------------|
| DC+ | Self-shielded |

OPERATING CONDITIONS

| Diameter [mm] | Current [A] | | Voltage [V] | | Stick-out [mm] | |
|---------------|-------------|---------|-------------|---------|----------------|---------|
| | Range | Optimum | Range | Optimum | Range | Optimum |
| 1.6 | 140 – 350 | 150 | 24 – 28 | 24 | 25 – 30 | 25 |
| 2.0 | 200 – 400 | 250 | 26 – 30 | 26 | 25 – 40 | 35 |
| 2.4 | 250 – 450 | 300 | 26 – 30 | 28 | 25 – 40 | 35 |

Recovery: 90 %

WELDING POSITIONS

Flat, half up, half down

PACKAGING

| Diameter | ≤ 2.4 mm | ≥ 2.4 mm | |
|--------------------|--------------------------|------------|--------------|
| Standard packaging | EN ISO 544: BS 300 spool | B 450 coil | Drum |
| Weight | 15 kg | 25 kg | Up to 330 kg |

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.