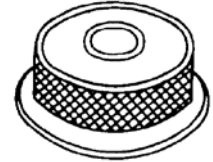


TH-45

Characteristics and Applications:

TH-45 is a low hydrogen type electrode. The weld metal is sorbite structure (Ferrite + cementite). The weld metal has good mechanical properties, excellent resistance to abrasion accompanied with impact. It is suitable for the welding of shovel tooth, bulldozer blades, crane wheels and buckets.



Notes on usage:

1. Dry the electrodes at 300-350°C for 30-60 minutes before using.
2. Clean up the contaminations on the steel.
3. Use back-step method to prevent arc starting from blowholes and stay for 3-5 seconds before every end-up.
4. Maintain short arc length. Moving range should be controlled within 2.5 times of the wire's dia when you are welding with weave method.

Typical chemical composition of weld metal (wt%):

| C | Mn | Si | Cr |
|------|-----|------|-----|
| 0.17 | 2.0 | 0.60 | 2.0 |

Typical hardness of weld metal:

| Testing Condition | | Vicker's Hardness (HV) | Rockwell's Hardness (HRC) | Shore's Hardness (HS) |
|--------------------------|-----------------------|------------------------|---------------------------|-----------------------|
| As Welded | Interpass temp. 150°C | 430 | 43 | 58 |
| | Cont. Build Up | 380 | 38 | 52 |
| Water Quenching At 900°C | | 450 | 45 | 61 |

Welding position:



Sizes and recommended current range (AC or DC <+>):

| Diameter (mm) | 3.2 | 4.0 | 5.0 |
|---------------|--------|---------|---------|
| Length (mm) | 350 | 350 | 450 |
| Amps | 80-130 | 120-180 | 160-220 |

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.