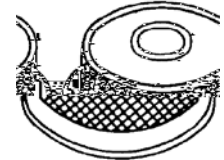


# TH-45

## 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 |

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COVERED ELECTRODES