# **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 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%):

С	Mn	Si	Cr
0.17	2.0	0.60	2.0

## Typical hardness of weld metal:

7	esting Condition	Vicker's Hardness (HV)	Rockwell's Hardness (HRC)	Shore's Hardness (HS)
As	Interpass temp. 150	430	43	58
Welded	Cont. Build Up	380	38	52
Water Quenching At 900		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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