



# HILCO HARDMELT 620

Stick electrodes – repair & maintenance – wear resistant

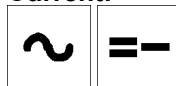
AWS A5.13 : E Fe 5-B (mod.)

EN 14700: E Fe4

DIN 8555: E 4-UM-60-ST

**Coating type:**  
Rutile

**Current:**



**Welding positions:**



Hardmelt 620 is our rutile coated electrode for wear resistant surfacing tool steels subject to metal-to-metal wear at elevated temperatures up to 550°C. Deposit weld metal is a high speed steel (HSS) similar to M-1 tool steel, structure is fine precipitated carbides in a martensitic matrix, hardness of pure weld metal is 62 HRc. This hardness can be increased after tempering. After welding the deposit can be machined by grinding only.

## Applications:

Hardmelt 620 produces a crack-free wear resistant tool steel deposit and is particularly suitable for applications involving severe metal-to-metal wear coupled with elevated temperatures (up to 550°C).

Typical applications include building up worn steel dies, high speed cutting tools, wire guides, punch and forging dies, cold and hot shear blades, trimmers or the application of wear resistant surfaces to unalloyed and low alloy steel.

## Chemical composition, wt. % weld metal – typical:

| C   | Mn  | Si  | Cr  | Mo  | V   | W   |
|-----|-----|-----|-----|-----|-----|-----|
| 0,9 | 0,5 | 0,8 | 4,5 | 8,0 | 1,2 | 2,0 |

## Mechanical properties, weld metal – typical:

| Hardness  |                     |
|---|---------------------|
| Pure weld metal                                       | approx. 62 HRc      |
| After soft annealing 840°C / oven                     | approx. 25 HRc      |
| After hardening 1180-1240°C<br>and tempered 550°C 2 h | approx. 64 - 66 HRc |

## Packaging and welding data:

| Dia.<br>mm. | Length<br>mm. | Weight (kgs)<br>1000 pcs. | Current<br>A |
|-------------|---------------|---------------------------|--------------|
| 2,5         | 350           | 28,2                      | 70-90        |
| 3,2         | 350           | 43,4                      | 90-110       |
| 4,0         | 450           | 86,2                      | 110-130      |