



## PHILARK PH 312

*Coated Electrode for High Alloyed Special Steels Difficult to Weld*



### General Description

It is extremely high strength and crack-resistant when joining steels of difficult weldability, such as hard manganese steels, tool steels, spring steels as well as dissimilar metal joints. A highly alloyed manual metal arc electrode with good deposition qualifies for the welding of air hardening steels, cementation steels, high carbon steels, V-Mo spring steels, stainless steels and any dissimilar combinations of these alloys.

Also ideal for the buffering of higher carbon and alloy steels prior to final hard overlays including 12-14% austenitic manganese steels. It gives workhardenable weld metal. The arc is stable and spatter-free.

Mechanical Strength	■	■	■	■	■
Crack Resistance	■	■	■	■	■
Heat input	■	■	■	■	■

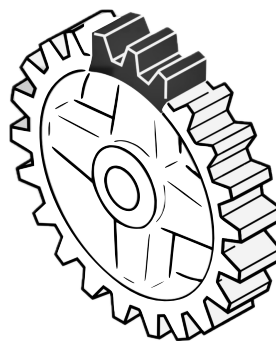
### Mechanical Properties of Weld Metal

Tensile Strength : 80 - 86 kg/mm<sup>2</sup>

Yield Strength : 64 - 66 kg/mm<sup>2</sup>

Elongation (L=5d) : 20 - 25 %

Hardness : 220 - 260 HB



Gears, Shafts and Cams

### Typical Applications

- Gears, shafts and cams
- Forging dies
- Cutting tools
- Extrusion and hydraulic cylinders
- Vibration sieves
- Forming tools
- Earth moving parts
- Chassis frames
- Cushion pass for tool steels
- Joining stainless steels to carbon steels and low alloy steels
- Joining austenitic manganese steels to carbon steels and low alloy steels.

### Welding Parameters

Current Type and Polarity : AC/DC(+)

Diameter [ mm ]	2.50	3.15	4.0
Length [ mm ]	350	350	350
Current [ A ]	60-80	90-100	125-150

PHILARK ALLOYS

REGD. OFFICE & WORKS: E 37, UPSIDC, MG ROAD, HAPUR, UP



011 42821005, 23231260



enquiry@philarkalloys.com



www.philarkalloys.com