

## Coated Electrode for Cast Irons

### Classification

EN ISO 1071 : E C NiCu-B 3  
 AWS A5.15 : ENiCu-B  
 DIN 8573 : E NiCu-BG 33

### General Description

AS Pik-65 is a Ni-Cu alloyed monel cored electrode. It is used for the welding of all types of cast irons. It gives a minimum amount of spatter and a very stable arc. The slag is easy to remove. Heat effected zone is very narrow. Porosity free weld metal can be easily machined. Filler metal has the same color with that of the work piece.

### Chemical Composition (w%), Typical, All Weld Metal

| C    | Si   | Mn   | Fe | Cu | Ni |
|------|------|------|----|----|----|
| 0.50 | 0.40 | 1.00 | 3  | 30 | 65 |

### Mechanical Properties, Typical, All Weld Metal

Yield Strength : 260 - 280 N/mm<sup>2</sup>  
 Tensile Strength : 400 - 420 N/mm<sup>2</sup>  
 Elongation (L=5d) : 15 %  
 Hardness : 140 - 160 HB

### Approvals

GOST, SEPRO, TSE

### Applications and Materials to be Welded

AS Pik-65 is particularly used for the joining and build up welding of parts made from gray cast iron, nodular cast iron, malleable cast iron and of parts whose analysis is not known. Monel alloy core has 65 % Ni / 30 % Cu. It is an ideal electrode for the joining of cast iron pieces to monel alloys, stainless and ordinary steels. It can also be used for filling up cavities in castings, or cavities that might form after machining.

When welding cast iron without preheat, the smallest possible electrode diameter and the lowest possible welding current should be selected to limit the width of the heat effected zone that might occur due to excess heating. When welding thick pieces, a preheating to 100-200°C and slow cooling is recommended.

#### Gray Cast Irons

| DIN EN 1561 | W. Nr. |
|-------------|--------|
| GG 10       | 0.6010 |
| GG 15       | 0.6015 |
| GG 20       | 0.6020 |
| GG 25       | 0.6025 |
| GG 35       | 0.6035 |

#### Blackheart Malleable Cast Irons

| DIN EN 1562 | W. Nr. |
|-------------|--------|
| GTS 35-10   | 0.8135 |
| GTS 45-06   | 0.8145 |
| GTS 55-04   | 0.8155 |
| GTS 65-02   | 0.8165 |
| GTS 70-02   | 0.8170 |

#### Nodular (Spheroid) Cast Irons

| DIN EN 1563 | W. Nr. |
|-------------|--------|
| GGG 40      | 0.7040 |
| GGG 50      | 0.7050 |
| GGG 60      | 0.7060 |
| GGG 70      | 0.7070 |
| GGG 80      | 0.7080 |

### Welding Parameters / Packing and Diameter Informations / Welding Positions

Current Type and Polarity : AC min 50 V ; DC (+)

| Diameter [ mm ] | Length [ mm ] | Current [ A ] | Electrode Weight [ g/100 pcs ] | Box Weight [ kg ] | Export Box Quantity [ pcs/box ] | Box Weight [ kg ] |
|-----------------|---------------|---------------|--------------------------------|-------------------|---------------------------------|-------------------|
| 2.50            | 300           | 65 - 90       | 1580                           | 1.2 / 75          | 2.0                             | 2.0               |
| 3.25            | 300           | 85 - 130      | 2650                           | 1.1 / 45          | 2.0                             | 2.0               |
| 4.00            | 400           | 110 - 160     | 5470                           | 2.4 / 65          | 2.5                             | 2.5               |



1G/PA



2F/PB



2G/PC