

Coated Electrode for Cast Irons

Classification

EN ISO 1071 : E C NiFe-1 3
 AWS A5.15 : ENiFe-CI
 DIN 8573 : E NiFe1-BG 33

General Description

AS Pik-55 is a nickel cored electrode. It is used for the welding of all types of cast irons and particularly for the joining of austenitic alloyed cast irons; called Ni-resist. It gives a very stable arc and a negligible amount of slag that can easily be removed. Weld metal can be easily machined and it has the same color with that of the cast iron. It has excellent mechanical properties and it is very resistant to cracking.

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

C	Fe	Ni
1.00	43	balance

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 320 - 360 N/mm²
 Tensile Strength : 430 - 470 N/mm²
 Elongation (L=5d) : 10 %
 Hardness : 160 - 200 HB

Approvals

GOST, SEPRO, TSE

Applications and Materials to be Welded

AS Pik-55 is particularly used for the joining and build up welding of gray cast iron, nodular cast iron and malleable cast iron parts. It is an ideal electrode for the joining of cast iron pieces to stainless steel or steel parts. On the other hand, it can also be used for filling up cavities in castings, or cavities that might form after machining. It is also an ideal electrode for the welding of parts, exposing to high dynamic forces, that are found in heavy machinery base and body.

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 150-200°C and slow cooling is recommended.

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

Diameter [mm]	Length [mm]	Current [A]	Electrode Weight [g/100 pcs]	Box Weight [kg] Quantity [pcs/box]	Export Box Box Weight [kg]
2.50	300	45 - 80	1670	1.2 / 70	2.0
3.25	300	60 - 120	2730	1.1 / 40	2.0
4.00	350	90 - 140	4750	2.4 / 50	2.5



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