

SMAW Electrodes



GC100

AWS A5.15 ENi-CI
JIS Z 3252 DFCNi

Product Features:

- Graphite type nickel base covered electrode for cast iron welding repair.
- High welding performance and good arc stability in low current range.
- Lower hardness of weld metal to get good machinability, good toughness and crack resistance.

Applications:

- Suitable for build up and repair welding of various kinds of cast irons.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	Ni	Fe
0.70	0.90	0.25	Bal.	4.0

Typical mechanical properties of all-weld metal

Tensile Strength N/mm ²	Hardness HV
412	166

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/350
Flat position	60~90	90~130	110~160

© Note: Refer to Page F4 Cast Iron Electrode welding

GC55

AWS A5.15 ENiFe-CI
JIS Z 3252 DFCNiFe

Product Features:

- Graphite type nickel base covered electrodes for cast iron welding and repair.
- High welding performance and good arc stability in low current range.
- All deposited metal contains approximately 55% Ni, 45%Fe.
- Expansion coefficient is similar to cast iron, easy to machining.

Applications:

- Suitable for joint and repair welding of various kinds of cast irons.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	Ni
1.13	0.89	0.61	55

Typical mechanical properties of all-weld metal

Hardness HV
180

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/350
Flat position	65~85	70~110	95~150

© Note: Refer to Page F4 Cast Iron Electrode welding note.

GC0

AWS A5.15 Est
JIS Z 3252 DFCFe

Product Features:

- Low hydrogen type covered electrode for cast iron welding and repair.
- Using GC100 or GC55 for first layer and GC0 for the others to save cost.

Applications:

- Suitable for cast iron welding and repair welding under high temperature and non-post machining required condition.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	P	S
1.1	0.75	0.56	0.023	0.008

© Note: No specific all weld metal chemical composition on Est, above analysis data is for reference.

Typical mechanical properties of all-weld metal

Hardness
HV
250

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/400	5.0/450
Flat position	60~90	90~140	140~190	150~220

© Note: Refer to Page F4 Cast Iron Electrode welding note.

GCI-2

AWS A5.15 ENiFe-CI
JIS Z 3252 DFCNiFe

Product Features:

- Graphite type covered electrodes for cast iron welding and repair.
- High welding performance and good crack resistance.
- All deposited metal contains approximately 55% Ni, 45%Fe.

Applications:

- Suitable for joint and repair welding of various kinds of cast irons.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	Ni
1.13	1.25	0.45	52

Typical mechanical properties of all-weld metal

Hardness
HV
180

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/350
Flat position	65~85	70~110	95~150

© Note: Refer to Page F4 Cast Iron Electrode welding

GCI-1

AWS A5.15 ENi-CI
JIS Z 3252 DFCNi

Product Features:

- Graphite type covered electrodes for cast iron welding and repair.
- High welding performance and good arc stability in low current range.
- Better machinability property than similar level electrodes.

Applications:

- Suitable for build up and repair welding of various kinds of cast irons.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	Ni	Fe
0.70	0.81	0.75	Bal.	4.1

Typical mechanical properties of all-weld metal

Hardness
HV
166

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/350
Flat position	60~90	90~130	110~160

© Note: Refer to Page F4 Cast Iron Electrode welding note.

GCI-3

AWS A5.15 Est
JIS Z 3252 DFCFe

Product Features:

- Low hydrogen Graphite type covered electrode for cast iron welding and repair.
- Using GC100 or GC55 for first layer, GCI-3 for the others to save cost.

Applications:

- Suitable for cast iron welding and repair welding under high temperature and non-post machining required condition.

Typical chemical composition of all-weld metal (wt%)

C	Si	Mn	P	S
1.8	1.15	0.56	0.023	0.008

© Note: No specific all weld metal chemical composition on Est, above analysis data is for reference.

Typical mechanical properties of all-weld metal

Hardness
HV
250

Size(mm) & recommended welding parameters (A)

Diameter / Length	2.6/300	3.2/350	4.0/400	5.0/450
Flat position	60~90	90~140	140~190	150~220

© Note: Refer to Page F4 Cast Iron Electrode welding note.