HARD 35

Product Features:

- Covered electrode, chromium carbide precipitation in austenite weld metal.
- High welding performance and less spatter loss
- Good bead appearance, very low friction coefficient in weld metal surface.
- Good for moderate impact and severe wear condition.

Applications:

- Suitable for hardfacing repair welding of worn out machine parts subjected to heavy abrasion and moderate impact conditions such as impactor, screw rod, wheel wing parts , drill bit, bulldozer, agitator blade etc.

Typical chemical composition of all-weld metal (wt%)			
C	Si	Mn	Cr
3.40	1.00	0.30	32.0

Typical hardness of weld metal		
Carbon steel HRC	Manganese steel HRC	layers
59	56	2

Size (mm) & recommended welding parameters(A)			
Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

◎ Note: 1.250~300˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Good for welding on carbon steel, low alloy steel and manganese steel base metal.
4. Abrasion resistant temperature ≦500°C.

GH800

Product Features:

- Carbon and chromium as major elements.
- Chromium carbides precipitation in weld metal to get high hardness and good wear resistance.

Applications:

- Suitable for machine parts subjected to heavy metal-to-soil abrasion and moderate impact conditions.

Typical chemical composition of all-weld metal (wt%)			
C	Si	Mn	Cr
3.4	0.90	1.00	33

Typical hardness of weld metal	
As welded HRC	layers
60	2

Size (mm) & recommended welding parameters(A)			
Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

◎ Note: 1. 250~300°C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.

GH900Mn

JIS Z 3251 DFCrA

Product Features:

- Carbon and chromium as major elements.
- Weld metal contains many different alloy elements such as Nb,V,Mo,W to get high hardness carbide structure.
- Wear resistance at elevated high temperature ≦ 816°C.
- Good corrosion and oxidation resistance at elevated high temperature.

Applications:

- Suitable for hardfacing repair welding of blast spray nozzle and agitator blade.

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

C	Si	Mn	Cr	Mo	Nb	W	V
5.6	0.9	1.13	23.8	5.8	5.5	2.0	1.2

Typical hardness of weld metal

As welded HRC	layers
63	2

Size (mm) & recommended welding parameters(A)

Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

◎ Note: 1. 200~250˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.

GH950

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Product Features:

- High chromium carbide precipitation type covered electrode.
- High hardness and good wear resistance.
- Wear resistance at elevated high temperature ≦ 500°C.

Applications:

- Suitable for repair welding of heavy metal-to-sand worn out machine parts.

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

C	Si	Mn	Cr
4.50	1.20	1.20	31.0

Typical hardness of weld metal

As welded HRC	layers
60	2

Size (mm) & recommended welding parameters(A)

Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~180	180~230

◎ Note: 1. 200~250˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.

GH950Nb

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Product Features:

- Carbide precipitation type covered electrode, C, Cr, Nb as major elements.
- Wear resistance at elevated high temperature ≦ 650°C.
- Good for repair welding of workpiece subjected to low stress and severe wear condition.

Applications:

- Suitable for repair welding of wear resistant plates, coal crusher wheel, slag crusher axle tube and breaker, etc.

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

C	Si	Mn	Cr	Nb
5.7	1.1	0.90	25.0	7.0

Typical hardness of weld metal

As welded HRC	layers
63	2

Size (mm) & recommended welding parameters(A)

Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

◎ Note: 1. 200~250˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.

GH950C

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Product Features:

- High welding performance, less spatter loss and low dilution ratio.
- Large quantity of chromium carbide contained in weld metal.
- Wear resistance at elevated high temperature ≦ 600°C.
- Good for severe metal to sand abrasion condition.
- Good for impact wear and corrosion resistance.

Applications:

- Suitable for surface repair welding of blast spray nozzle and agitator blade.

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

C	Si	Mn	Cr	Others
5.9	1.10	1.10	33.2	≦2.0

Typical hardness of weld metal

As welded HRC	layers
61	2

Size (mm) & recommended welding parameters(A)

Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~190	180~230

◎ Note: 1. 200~250˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.

GHCW | –

Product Features:

- High Tungsten carbide precipitation type covered electrode.
- High weld metal hardness to get very good wear resistance.
- High welding performance, less spatter loss and low dilution ratio.

Applications:

- Suitable for repair welding of heavy worn out machine parts such as shovel teeth, drill bit, scraper cutter and agitator screw blades, etc.

Typical chemical composition of all-weld metal (wt%)			
C	Si	Mn	W
4.1	1.85	0.6	42.0

Typical hardness of weld metal	
As welded HRC	layers
65	2

Size (mm) & recommended welding parameters(A)			
Diameter/ length	3.2/350	4.0/400	5.0/450
Flat/ position	100~140	140~180	180~230

◎ Note: 1. 200~250˚C x 1 hr baking prior to use.
2.Max. 2 layers.
3.Typical stress crack occurred to prevent peeling damage between base and weld metal.
4.Min.150˚C preheat on base metal before welding.