

# Electrode: High Tensile Strength Steel



## WE-556

### Welding Position

Classification	AWS A5.5 E8016-G
	EN 499 46 3 Mn1Ni B 12 H5
	ISO 2560 B 8016-G



### Application and Properties:

WE-556 is low hydrogen potassium electrode. It is used for welding of 550MPa high tensile strength steels for shipbuilding, steels structure, offshore structures, pressure vessels, and construction machinery. It is suitable for all position welding and offers high resistance to crack, excellent mechanical property and X-Ray.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V	Cu
EN499		1.4-2.0	--	0.2	0.6-1.2	0.2	--	--	0.05	0.3
AWS	0.12	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	--	--	0.10	≥0.20
Type Value	0.06	1.51	0.42	0.03	0.7	0.02	0.014	0.012	0.002	0.03

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
EN499	460	550	20	47/-30
AWS	460	550	19	27/-30
Type Value	510	620	26	120/-30

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-

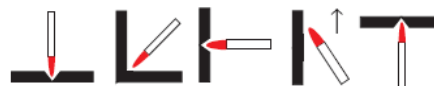
## Electrode: High Tensile Strength Steel



### WE-558

#### Welding Position

<b>Classification</b>	AWS A5.5 E8018-G
	EN 499 46 6 Mn1Ni B 32 H5
	ISO 2560 B 8018-G



#### Application and Properties:

WE-558 is low hydrogen potassium, iron powder electrode. It is used for welding of 550MPa high tensile strength steels for storage tanks, offshore structures, pressure vessels, and construction machinery. It is suitable for all position welding and offers high resistance to crack, excellent mechanical property and X-Ray. Recovery is 115-125%.

#### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

#### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V	Cu
EN499		1.4-2.0	--	0.2	0.6-1.2	0.2	--	--	0.05	0.3
AWS	0.12	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	--	--	0.10	≥0.20
Type Value	0.06	1.47	0.40	0.04	0.8	0.02	0.012	0.011	0.002	0.03

#### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
EN499	460	550	20	47/-60
AWS	460	550	19	27/-60
Type Value	518	623	26	125/-60

#### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-90	90-150	130-200	180-260
	V, OH	50-80	90-130	130-180	-

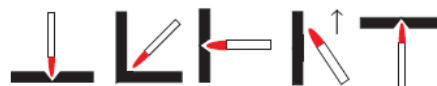
## Electrode: High Tensile Strength Steel



### WE-626

#### Welding Position

Classification	AWS A5.5 E9016-G
	EN 757 E 55 2 Z B 12 H5



#### Application and Properties:

WE-626 is low hydrogen potassium electrode. It is used for welding of 620MPa high tensile strength steels for storage tanks, offshore structures, pressure vessels, and construction machinery. It is suitable for all position welding and offers high resistance to crack, excellent mechanical property and X-Ray.

#### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

#### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V	Cu
AWS	--	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	--	--	0.10	≥0.20
Type Value	0.05	1.36	0.38	0.03	0.84	0.26	0.015	0.012	0.001	0.03

#### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
EN757	550	610-780	18	47/-20
AWS	530	620	17	27/-20
Type Value	570	670	25	80/-20

#### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-

# Electrode: High Tensile Strength Steel



## WE-708

### Welding Position

<b>Classification</b>	AWS A5.5 E10018-G
	EN 757 E 62 6 Mn1.5NiMo B 42 H5



### Application and Properties:

WE-708 is low hydrogen potassium, iron powder electrode. It is used for welding of 690MPa high tensile strength steels for storage tanks, offshore structures, pressure vessels, and construction machinery. It is suitable for all position welding and offers high resistance to crack, excellent mechanical property and X-Ray. Recovery is 115-125%.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DCEP.

### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V	Cu
EN757	0.03-0.10	1.4	-	0.2	1.2-1.8	0.3-0.6	0.025	0.020	0.05	0.3
AWS	0.12	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	0.03	0.03	0.1	≥0.20
Type Value	0.08	1.65	0.45	0.03	1.52	0.45	0.010	0.007	0.001	0.03

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
EN757	620	690-780	18	47/-60
AWS	600	690	16	27/-60
Type Value	650	730	25	110/-60

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-

# Electrode: High Tensile Strength Steel



## WE-808

### Welding Position

<b>Classification</b>	AWS A5.5 E11018-G
	EN 69 5 Mn2NiMo B 4 2 H5



### Application and Properties:

WE-808 is low hydrogen potassium, iron powder electrode. It is used for welding of 760MPa high tensile strength steels for offshore structures, pressure vessels, storage tanks and construction machinery. It has excellent weldability, stable arc, nice molding, exquisite ripple, little spatter, good slag detachability, and high X-Ray eligibility rate. It is suitable for all position welding. Recovery is 115-125%.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DCEP.

### Chemical Composition of Deposited Metal:

ELEMENT wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V
EN757	0.03-0.10	1.4-2.0	-	0.3-0.6	1.8-2.6	0.3-0.6	0.025	0.020	0.05
AWS	0.10	1.30-1.80	0.60	0.40	1.25-2.50	0.25-0.50	0.03	0.03	0.05
Type Value	0.08	1.40	0.48	0.32	1.94	0.40	0.010	0.008	0.01

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
EN757	690	760-960	17	47/-50
AWS	670	760	15	27/-50
Type Value	710	820	23	110/-50

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×400	5.0×400
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-

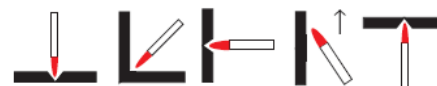
## Electrode: High Tensile Strength Steel



### WE-858

#### Welding Position

<b>Classification</b>	AWS A5.5 E12018-G
	EN 757 E 89 2 Mn2Ni1CrMo B 32 H5



#### Application and Properties:

WE-858 is low hydrogen potassium, iron powder electrode. It is used for welding of 830MPa high tensile strength steels, which is suitable for all position welding. It offers high resistance to crack, excellent mechanical property and X-Ray. Recovery is 115-125%.

#### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DCEP.

#### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V	Cu
EN757	0.03-0.10	1.4-2.0	-	0.3-1.0	1.8-2.6	0.3-0.6	0.025	0.020	0.05	0.3
AWS	0.12	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	0.03	0.03	0.1	≥0.20
Type Value	0.07	1.89	0.31	0.81	2.21	0.71	0.010	0.008	0.001	0.02

#### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J/°C
EN757	890	980-1180	15	47/-20
AWS	740	830	14	27/-20
Type Value	940	1080	16	80/-20

#### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-

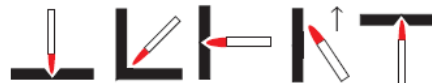
# Electrode: High Tensile Strength Steel



## WE-5083

### Welding Position

Classification	AWS A5.1 E7018
	EN E 42 3 B 32 H5
	ISO 2560 B-E4918



### Application and Properties:

WE-5083 is an iron powder and low hydrogen type stick electrode, which is suitable for all position welding. It offers high deposition efficiency, excellent mechanical property and X-Ray. It is suitable for the welding of steel structure, port machinery, shipbuilding and pressure vessels.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V
AWS	--	1.60	0.75	0.20	0.30	0.30	--	--	0.08
Type Value	0.08	1.35	0.60	0.03	0.04	0.03	0.020	0.015	0.02

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
AWS	400	490	22	27/-30
Type Value	450	520	30	110/-30

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-250
	V, OH	50-80	90-120	130-160	-

# Electrode: High Tensile Strength Steel



## WE-5085

### Welding Position

Classification	AWS A5.1 E7018-1
	EN E 42 5 B 32 H5
	ISO 2560 B-E4918-1A



### Application and Properties:

WE-5085 is an iron powder and low hydrogen type stick electrode, which is suitable for all position welding. It offers high deposition efficiency, excellent mechanical property and X-Ray. It is suitable for the welding of offshore platform, port machinery, shipbuilding, and pressure vessels.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V
AWS	--	1.60	0.75	0.20	0.30	0.30	--	--	0.08
Type Value	0.080	1.32	0.51	0.03	0.04	0.03	0.020	0.015	0.02

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J/°C
AWS	400	490	22	27/-50
Type Value	475	570	29	120/-50

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-250
	V, OH	50-80	90-120	130-160	-



# Electrode: High Tensile Strength Steel



## WE-5086

### Welding Position

Classification	AWS A5.1 E7018-G
	EN E 42 6 1Ni B 32 H5
	ISO 2560 B-E4918-G



### Application and Properties:

WE-5086 is an iron powder and low hydrogen type stick electrode, which is suitable for all position welding. It offers high deposition efficiency, excellent mechanical property and X-Ray. It is suitable for the welding of offshore platform, port machinery, shipbuilding, and pressure vessels.

### Notes on Usage:

1. Dry the stick electrode at 350°C for one hour before welding.
2. Be sure to remove moisture, oil and rust on the base metal.
3. To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.
4. Keep short arc length when welding. If the weave is permitted, the width is less than 3 times diameter.
5. Current type: DC or AC.

### Chemical Composition of Deposited Metal:

Element wt%	C	Mn	Si	Cr	Ni	Mo	P	S	V
AWS	--	≥1.00	≥0.80	≥0.30	≥0.50	≥0.20	0.03	0.03	0.10
Type Value	0.085	1.31	0.40	0.03	0.90	0.03	0.022	0.015	0.02

### Mechanical Properties of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J°C
AWS	400	490	22	27/-60
Type Value	490	580	29	110/-60

### Size Available and Recommended Parameter:

Diameter and Size/mm		2.6×350	3.2×350	4.0×450	5.0×450
Current/Amp	F	55-85	90-130	130-180	180-240
	V, OH	50-80	90-120	130-160	-