

Standards

EN 14700 T Fe7 CZ
DIN 8555 UP 5 GF 45 CZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
0.08-0.12	0.6-1.20	0.50-1.00	12.00-13.00
Ni	Mo	Nb+V	Fe
2.50-3.00	0.80-1.20	<0.60	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

40-45

Features and Applications

- Tubular wire for submerged arc welding. The alloy has high hardness and corrosion resistance. Ferritic/martensitic stainless steel weld deposit with excellent resistance to thermal fatigue.
- SUBCOR 41 NiMo MH-1 used for cladding various steel mills that subject to thermal stresses, corrosion and metal-to-metal wear.
- Continuous caster rolls, some other rolls in hot rolling applications.

Welding Positions

Flat

Shielding Gas

KXF400 flux

Current Type

D.C. (+)

Operating Data

Product Code	Diameter (mm)	Package Type
	3.20	BS 300
	2.40	B 450
		Drum

Standards

EN 14700 T Fe15 60 GCZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
5.00-6.00	1.00-1.50	1.00-1.80	27.00-29.00	Balance

Mechanical Properties**Hardness**

(As Welded) (HRC)

58-61

Features and Applications

- Tubular wire for self-shielded metal arc hardfacing. High Chromium Carbide deposit for hard surfacing components subject to extremely severe abrasive wear and impact.
- The deposit contains a high proportion of hard primary chromium carbides in a tough austenitic matrix.
- HARDCOR 58 0 is designed specifically for Vertical Mill components which undergo heavy wear by abrasive materials.
- Vertical Mill Rollers and Tables

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	2.40	BS 300	15
	2.80	B 450	25
		Drum	450

Standards

EN 14700 T Fe15 60 GCZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
4.50-5.50	1.50	1.50	25.00-27.00	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

58-61

Features and Applications

- Tubular wire for self-shielded metal arc hardfacing. High Chromium Carbide deposit for hard surfacing components subject to extremely severe abrasive wear and impact.
- The deposit contains a high proportion of hard primary chromium carbides in a tough austenitic matrix.
- HARDCOR 63 01 is designed specifically for Vertical Mill components which undergo heavy wear by abrasive materials.
- Vertical Mill Rollers and Tables

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	2.40	BS 300	15
	2.80	B 450	25
		Drum	450

Standards

EN 14700 T Fe 15 65 GCZ
DIN 8555 MF 10 GF 65 GRZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
5.00-6.00	0.20-0.50	1.00-1.80	22.00-23.00
Nb	B	Fe	
5.80-7.00	+	Balance	

Mechanical Properties

Hardness

(As Welded) (HRC)

60-63

Features and Applications

- Tubular wire for self shielded metal arc hardfacing. It is designed for extreme resistance to high stress abrasion with moderate impact.
- It is used in very high abrasion/erosion environment
- The wire is designed specifically for blast furnace bells, screens, sinter stars, agglomeration fans, sinter exhausters etc.

Structure

Chromium Carbides, Niobium Carbides.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.40	B 450	25
	2.80	Drum	330

Standards

EN 14700 T Fe8 55 GP
DIN 8555 MF 6 GF 55 GP

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
1.50-2.50	1.00-2.00	0.8-1.20	6.70-7.50
Mo			Ti
0.80-1.00			5.0-6.00

Mechanical Properties

Hardness

(As Welded) (HRC)

53-58

Features and Applications

- Tubular hardfacing wire for open arc welding. High Chromium cast iron for hardfacing components subject to severe abrasion and heavy impact.
- HARDCOR 58 TIG - OL is designed for excellent resistance to impact, gouging and grinding abrasion.
- Scraper blades, brick dies, earthmoving and crushing equipment etc.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	330
	2.80		

Standards

EN 14700 T Fe16 65 GCZ
DIN 8555 MF 10 GF 65 GRZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
5.30-5.80	0.50	1.50	21.00-23.00
Mo	W	Nb	V
5.00-5.50	1.50-2.50	5.00-6.00	0.50-1.00

Mechanical Properties

Hardness

(As Welded) (HRC)

63-66

Features and Applications

- HARDCOR 65 - 01 is a flux cored wire for hardfacing application especially with extreme abrasive wear at elevated temperatures.
- HARDCOR 65 - 01 is used where extreme abrasive wear is expected at elevated temperatures up to 600C
- Blast furnace bells, coke oven screens and doors, sinter wheel breakers, chutes etc.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	330
	2.80		

Standards

EN 14700 T Fe9 250/50 KNP
DIN 8555 MF 7 GF 250/50 KNP

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
0.70-1.10	14-16	0.40-0.70	3-5
		Ni	Fe
		0.80-1.20	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

41-48

Features and Applications

- Flux-Cored wire for self shielded arc welding. It has austenitic deposit with excellent work hardening properties.
- HARDCOR 14 Mn-01 has excellent work hardening properties. It can be applied as multi layers and it is used for rebuilding parts which are subjected to high impact or heavy loads.
- Crusher jaws, hammers, blow bars crusher rolls.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	250
	2.80		

Standards

EN 14700 T Fe10 200/50 CKPRZ
DIN 8555 MF 8 GF 200/50 CKPRZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
0.04-0.10	6-7	0.40-0.80	18.50-19.50
		Ni	Fe
		8-9	Balance

Mechanical Properties

Hardness
(As Welded) (HRC)
45-48

Hardness
(As Welded) (HB)
180 - 200

Features and Applications

- Flux-Cored wire for self shielded arc welding. It has austenitic deposit with good corrosion resistance. Deposit also have good impact and cavitation resistance
- H6-0 has work hardening properties. It is used for rebuilding parts which are subjected to impact and corrosion.
- Steel Mill Rolls, tram and train lines, forming rolls

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC(+)

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	250
	2.80		

Standards

EN 14700 T Fe9 250/50 KNP
DIN 8555 MF 7 GF 250/50 KNP

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
0.70-1.10	14-16	0.40-0.70	3-5
		Ni	Fe
		0.80-1.20	Balance

Mechanical Properties

Hardness (As Welded) (HRC)
41-48

Hardness (As Welded) (HB)
200 - 240

Features and Applications

- Flux-Cored wire for self shielded arc welding. It has austenitic deposit with excellent work hardening properties.
- HARDCOR 14 Mn-01 has excellent work hardening properties. It can be applied as multi layers and it is used for rebuilding parts which are subjected to high impact or heavy loads.
- Crusher jaws, hammers, blow bars crusher rolls.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	250
	2.80		

Standards

EN 14700:2024 T Fe9 250
DIN 8555 MF 8 GF 200

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr
0.30-0.40	14-16	0.40-0.70	13.0-15.0
Ni		Fe	
1.50-2.00		Balance	

Mechanical Properties

Hardness
(As Welded) (HRC)
40-48

Hardness
(As Welded) (HB)
200 - 240

Features and Applications

- Flux-Cored wire for self shielded arc welding. It has austenitic deposit with excellent work hardening properties.
- Kladex H16R-0 has excellent work hardening properties and it deposits austenitic weld metal.
- It can be applied as multi layers and it is used for rebuilding parts which are subjected to high impact or heavy loads.
- Railroad frogs, hammers, crusher rolls.

Welding Positions

Flat, half up and half down

Shielding Gas

Self Shielded

Current Type

DC+

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.00	B 450	25
	2.40	Drum	250
	2.80		

Standards

EN 14700 T Fe7 CZ
DIN 8555 UP 5 GF 250 CZ

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
0.06	1.00	0.60	17.50	Balance

Mechanical Properties

Hardness

(As Welded) (HB)

200-230

Features and Applications

- Tubular wire for submerged arc welding. This alloy is designed to produce a weld chemistry in one layer similar to Kladex M40-S all weld metal composition.
- SUBCOR 430-1 is used for corrosion and wear resistant applications. It has good high temperature corrosion resistance and oxidation resistance. It is a buffer layer before applying %12-%13 Chromium martensitic alloys.
- Continuous caster rolls.

Welding Positions

Flat

Shielding Gas

KXF400 flux

Current Type

DC+

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	2.40	BS 300	15
	2.80	B 450	25
		Drum	250

Standards

EN 14700 T Fe9

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
0.40	16.0	0.50	14.0	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

45 - 47

Hardness

(As Welded) (HB)

210 - 240

Features and Applications

- Cored wire for self shielded metal arc hardfacing
- Austenitic deposit with excellent work hardening properties
- HARDCOR 660-01 produces an austenitic and non magnetic weld deposit which has excellent work hardening properties. The degree of work hardening is dependent on the amount of impact on the rebuilt component. It is used for rebuilding components exposed to high impact or heavy loads and can be used on ferritic and austenitic steels including "Hadfield" manganese steel.
- Deposit can be multi-layered
- Railroad frogs, crusher rolls, hammers, steel mill rolls and all components where a work hardening deposit is desirable.

Welding Positions

Flat, half up, half down

Shielding Gas

Self shielded

Current Type

DC+

Operating Data

Diameter (mm)	Amperage (A)		Voltage (V)		Stick-out (mm)	
	Range	Optimum	Range	Optimum	Range	Optimum
1.2	100 - 300	250	21 - 35	28	12 - 25	15
1.6	150 - 300	270	24 - 35	28	15 - 25	20
2.0	200 - 400	300	26 - 35	28	20 - 50	30
2.4	250 - 450	350	26 - 35	28	25 - 50	40
2.8	250 - 450	400	28 - 35	30	25 - 50	40

Standards

EN 14700 TZ Fe14 60
DIN 8555 MF 1060 G

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
5.50-6.00	0.40	1.10	28.00-29.00	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

58-61

Features and Applications

- Self Shielding flux cored wire. It is manufactured specifically for hardfacing parts that are exposed to very extreme abrasive wear . It has good corrosion resistance.
- HARDCOR 56-0 PL56-0 is designed specifically for hardfacing parts that are subject to heavy abrasion wear such as hardfaced plates.
- Hardfaced plates.

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	2.40	BS 300	15
	2.80	B 450	25
		Drum	330

Standards

DIN 8555 MF 10 GF 60G

Chemical Composition of Weld Metal % (Typical)

C	Mn	Si	Cr	Fe
3-5	0.20	1.40-1.80	21-23	Balance

Mechanical Properties

Hardness

(As Welded) (HRC)

56-60

Features and Applications

- Tubular wire for self-shielded metal arc hardfacing. Austenitic/Martensitic steel with high amount of eutectic M₇C₃ carbides. It has good combination of impact and abrasion resistance. It is used for hardfacing of shredders, hardfaced plates and crushing equipment.
- HARDCORE 55-OB1 is used for hardfacing components undergoing wear by earth, sand and abrasives.
- Crushers, shredders etc...

Welding Positions

Flat, half up, half down

Shielding Gas

Self Shielded

Current Type

DC+/DC-

Operating Data

Product Code	Diameter (mm)	Package Type	Package Weight (Kg)
	1.60	BS 300	15
	2.40	B 450	25
	2.80	Drum	330