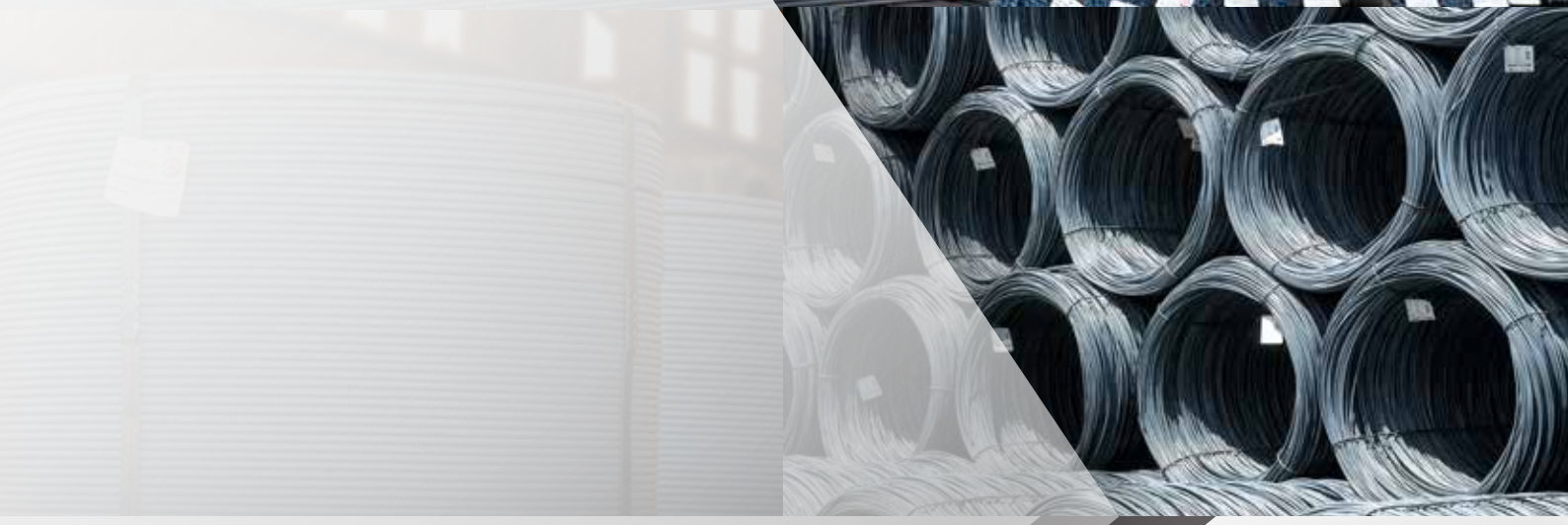

PRODUCTS
المنتجات

شركة السويس للصلب
SUEZ STEEL CO.

Hadidna FROM SOLB MISR

FROM **ORE** TO **CORE**

فهرس المحتويات/ Index

Solb Misr

A Holding group and owner of **Suez Steel Company**, producing all types of steel products including rebars, wire rods, spools, Cut and Bend portfolio.

Suez Steel Company

An integrated steel complex comprised of DRI plant, two melting shops, three rolling mills, in addition to that, there are several supporting factories to complete the production cycle. Notable, all these factories are in Suez governorate.

Hadidna

It is the trademark for all our steel products, ensuring to meet the top world class quality standards.

Vision

Suez steel Company is committed to sustainable growth in the steel industry within the region and globally through fully integrated, environmentally friendly, and advanced steel manufacturing using the updated technology for excellence and high quality products.

Mission

Suez Steel Company continuously invests in improving its products, human capital, and constantly seeks to exceed expectations with relentless improvement in processes, systems, quality, efficiency, new products launching , human development, and excellent customer service.

Suez Steel Company strives to achieve a long-term relationship and partnership with its Stakeholders and is committed to values; fairness, transparency, and excellency.

Suez Steel Company supports and develops the community through its Corporate Social Responsibility programs, initiatives, and maintain sustainability to the environment.

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Cairo, Fifth Settlement, Banks Complex St.,
Plot 116/118, 2nd Floor,
Tel. +2 011 177 110 99
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Facebook Instagram LinkedIn Website

صلب مصر

مجموعة مصرية مالكة لشركة السويس للصلب لإنتاج كافة منتجات الصُلب من الأطوال واللفات بالاضافة إلى البَكَر ومنتجات القطّع والثني.

شركة السويس للصلب

مُجمع متكامل لإنتاج الصُلب، يتألف من مصنع للاختزال المُباشر، مصنعين لصهر الحديد، وثلاثة مصانع للدرفلة بالإضافة إلى مجموعة من المصانع المساعدة لإتمام العملية الإنتاجية، وجميع هذه المصانع تقع في محافظة السويس.

حديدنا

العلامة التجارية لمنتجات الشركة والتي تمثل ضمان الجودة العالمية لكافة المنتجات التي تحملها.

الرؤية

تلتزم الشركة بتوفير النمو المستدام في صناعة الصُلب اقليمياً وعلى الصعيد العالمي أيضاً، وذلك من خلال تصنيع الصُلب بكل مراحله بأحدث الطرق التكنولوجية وأكثرها أماناً وصديقة للبيئة، من اجل الحصول على أكثر المنتجات تميزاً وأعلاها من حيث الجودة.

المهمة

تقوم شركة السويس للصلب بالاستثمار بشكل مستمر لرفع جودة منتجاتها ورأس المال البشري الخاص بها، علاوة على ذلك تسعى الشركة أيضاً باستمرار جاهدة لتجاوز التوقعات من خلال التحديث والتحسين المستمر لمراحل التصنيع المختلفة وأنظمتها وبالتالي رفع الجودة والكفاءة علاوة على إصدار المنتجات الجديدة والنهوض بالتنمية البشرية وخدمة العملاء.

تسعى شركة السويس للصلب بكل قوة وتبذل كل جهد لتحقيق علاقة متينة وشراكة طويلة الأمد مع كافة شركاء النجاح، علاوة على التزام الشركة بأعلى القيم والأمانة والشفافية مما يصل بها إلى أعلى درجات الرقي والتميز.

تدعم شركة السويس للصلب بقوة المجتمع ككل وتعمل بكل جهد على تطويره وذلك من خلال إطلاق البرامج وإرساء المبادرات وتحديد المسؤوليات الاجتماعية للشركة، مع المحافظة علي الاستدامة البيئية.

المقر الرئيسي
شارع مجمع البنوك موازي لشارع التسعين
قطعة ١١٦/ ١١٨ الدور الثاني - القاهرة الجديدة
القاهرة - مصر
تليفون: ٢+ ١١١٧٧١١٠٩٩

المصنع
طريق الادبية.عتاقة السويس مصر
تليفون:٥/ ٢٠٦٢٣٢٣٠٨٠٣+

www.solbmisr.com

Facebook Instagram LinkedIn Website

FROM **ORE** TO **CORE**

SOLB MISR is an Egyptian steel group producing a wide range of steel by-products, semi-finished, finished, and downstream steel, coping with the international standards.

The group operates through **Suez Steel Company**, an integrated steel complex comprised of the following:

- Direct reduction plant with a capacity of 1.950.000 tons per year.
- Two melting shops with a capacity of 2.050.000 tons per year.
- Three rolling mills with a capacity of 2.050.000 tons per year.
- Cut & Bend plant with a capacity of 60.000 tons per year.
- Several supporting factories to complete the production cycle.

All the above factories are located in Suez Governorate.

Through its collaboration with top-notch equipment, and raw material suppliers, **Suez Steel Company** offers infallible quality to its customers. **Suez Steel Company** is aware that steel is a highly demanding and competitive industry, as such, the company adopts a policy of ongoing investment in its plants, and human resources in order to ensure that its capabilities keep pace with evolving market demands.

Such commitment to continuous improvement has positioned **Suez Steel Company** as the go-to steel supplier for local, regional, and international clients. Today, **Suez Steel Company** has earned a reputation for being a company of dedicated professionals, committed to quality products, efficient processes, and continuous development.

من الخام إلى الصلب

تُعد **مجموعة صُلب مصر** من أكبر الشركات المصرية التي تقوم بإنتاج منتجات متعددة من الصُلب مصنفة الي منتجات نهائية ونصف نهائية وثانوية وذلك وفقاً للمعايير الدولية.

تعمل المجموعة من خلال **شركة السويس للصلب** التي تشكل مُجمّعاً متكاملاً لإنتاج الصُلب وتتضمّن المصانع التالية:

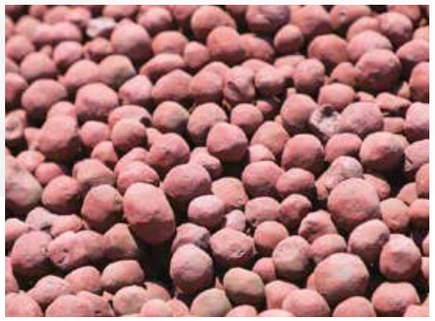
- مصنع الاختزال المباشر بطاقة إنتاجية تبلغ ١,٩٥٠,٠٠٠ طن سنوياً.
- مصنعين لصهر الحديد بطاقة إنتاجية تبلغ ٢,٠٥٠,٠٠٠ طن سنوياً.
- ثلاثة مصانع للدرفلة بطاقة إنتاجية تبلغ ٢,٠٥٠,٠٠٠ طن سنوياً.
- مصنع تشكيل الحديد بطاقة إنتاجية تبلغ ٦٠,٠٠٠ طن سنوياً.
- مجموعة من المصانع المساعدة لإتمام العملية الإنتاجية.

جميع المصانع السابق ذكرها تقع فى محافظة السويس.

من خلال تعاونها مع أفضل موردي المُعدّات والمواد الخام على مستوى العالم ومتابعة أحدث ما وصل إليه العلم في صناعة الصُلب، تقوم **شركة السويس للصلب** بتوفير أفضل مستويات الجودة في صناعة الحديد. نعي تماماً أن صناعة الحديد شديدة التنافسية و ذات متطلبات عالية التحدي، وبالتالي تنتهج الشركة سياسة الاستثمار المستمر في مصانعها المتعددة وفي العامل البشري لضمان استمرارية توافق إمكانياتها مع المتطلبات المتنامية لاحتياجات السوق.

بفضل هذا التفانى فى سبيل التطوير، أصبحت **شركة السويس للصلب** مورّد مُفضل ومُستدام بين عملاء محليين وإقليميين وعالميين، وعلى مدار الأعوام اكتسبت **شركة السويس للصلب** فريقاً كبيراً من الاختصاصيين المتفانيين والملتزمين الذين يتميزون بأعلى مستوى من الاحترافية والكفاءة المهنية مما يميزنا لنتفرد في الوصول لأعلى مقاييس الجودة، والكفاءة في عمليات الإنتاج.

DRI | الاختزال المباشر



Direct Reduced Iron (DRI)

Source of a clean and rich-in metallic Iron component. Suez Steel Company produces in consistent quality a high Fe, low residual metallic material required for producing high quality steel products in a wide variety of furnaces.

Benefits of using DRI in the EAF

- Very low residual element content.
- Can be continuously fed to the furnace at 600 °C with power saving 100 KWH/Ton.
- Predictable, uniform & certified chemical analysis.
- Can be hot-charged in integrated plants.
- Predictable mass and heat balances.
- Better slag foaming.
- Carbon content can be tailored to EAF requirements.
- Control of Nitrogen in steel.
- Easier to handle than scrap.
- Melt consistency.
- Environmentally friendly.

Chemical parameters

- Total Iron (Fe t %) 88% min. –typical 91%.
- Metallic Iron (Fe m%) 85% min. – typical 86%.
- Metallization 93-94% min – typical 93.5%.
- Carbon (C%) 2 – 3% - typical 2.5%.
- Sulphur (S%) 0.01% max.
- Gangue (SiO_2, CaO, MgO, Al_2O_3 %) 5.5 % max

Size parameters

Available in pellets with diameter size (9-16) mm.

High Reactivity Burnt Lime

Suez Steel Company lime is a high calcium quicklime (calcium oxide – CaO) which is highly reactive, for reliable results.

Suez Steel Company burnt lime is suitable for a wide range of applications such as, iron purification, preserving heat refractories, waste treatment and agriculture. Fine lime products are available in a choice of size to meet customer requirements.

Chemical parameters

- Loss on ignition from 2% to 6%.
- Calcium oxide from 88% to 90%.
- Silicon oxide (SiO_2) max. 3%.

Size parameters

Available in many sizes:

(0 – 5) mm, (5 – 15) mm, (15 – 50) mm.

Dolomitic Quicklime

Dolomitic quicklime is lime made from high-quality deposit of dolomite stone which contain magnesium carbonate ($MgCO_3$) by percentage of 40% up to 44% and calcium carbonate by percentage of 50% up to 55%, the dolomite stone is burnt in high technology kiln getting a perfect quality of (CaO + MgO).

Suez Steel Company dolomitic quicklime is suitable for

a wide range of applications, which include:

- Iron and steel making.
- Environmental applications.
- Production of heat refractories.

And many other applications.

Chemical parameters

- MgO...from 30% up to 35%
- CaO...from 50% up to 55%
- SiO_2...max 1%

Size parameters

Available in bulk size (50-5) mm.

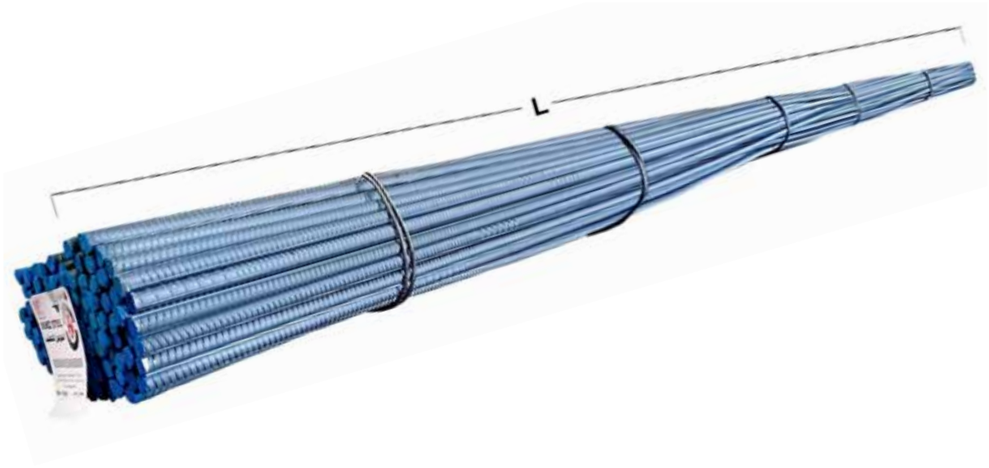
Chemical composition of Billet as per the following table :

Serial	Designation	Billet Chemical Analysis specification							
		C %	Mn %	Si%% Max	P % Max	S % Max	N % Max	CE %	According To :
1	SAE 1006	0.04_0.08	0.25_0.45	0.15	0.040	0.050	0.012		ASTM A1040-21
2	SAE 1008	0.05_0.10	0.30_0.50	0.15	0.040	0.050	0.012		ASTM A1040-21
3	SAE 1010	0.08_0.13	0.30_0.60	0.15	0.040	0.050	0.012		ASTM A1040-21
4	SAE 1012	0.10_0.15	0.30_0.60	0.15	0.040	0.050	0.012		ASTM A1040-21
5	SAE 1015	0.13_0.18	0.30_0.60	0.25	0.040	0.050	0.012		ASTM A1040-21
6	SAE 1018	0.15_0.20	0.60_0.90	0.25	0.040	0.050	0.012		ASTM A1040-21
7	SAE 1020	0.18_0.23	0.60_0.90	0.25	0.040	0.050	0.012		ASTM A1040-21
8	SAE 1022	0.18_0.23	0.70_1.00	0.25	0.040	0.050	0.012		ASTM A1040-21
9	SAE 1023	0.20_0.25	0.30_0.60	0.25	0.040	0.050	0.012		ASTM A1040-21
10	SAE 1025	0.22_0.28	0.30_0.60	0.25	0.040	0.050	0.012		ASTM A1040-21
11	SAE 1030	0.28_0.34	0.60_0.90	0.25	0.040	0.050	0.012		ASTM A1040-21
12	SAE 1037	0.32_0.38	0.70_1.0	0.25	0.040	0.050	0.012		ASTM A1040-21
13	SAE 1045	0.43_0.50	0.60_0.90	0.25	0.040	0.050	0.012		ASTM A1040-21
14	ST 300D-R	-	-	-	0.05	0.05	-		ES 262/2021
15	ST 300DWR	0.27 Max	1.50 Max	0.55 Max	0.04	0.04	0.012	0.49	ES 262/2021
16	ST 350DWR	0.27 Max	1.60 Max	0.55 Max	0.04	0.04	0.012	0.51	ES 262/2021
17	ST 400D-R	0.29 Max	1.60 Max	0.55 Max	0.04	0.04	-	0.55	ES 262/2021
18	ST400DWR	0.29 Max	1.80 Max	0.55 Max	0.04	0.04	0.012	0.56	ES 262/2021
19	ST420DWR	0.30 Max	1.50 Max	0.55 Max	0.04	0.04	0.012	0.56	ES 262/2021
20	ST500D-R	0.32 Max	1.80 Max	0.55 Max	0.04	0.04	0.012	0.60	ES 262/2021
21	ST 500DWR	0.32 Max	1.80 Max	0.55 Max	0.04	0.04	0.012	0.61	ES 262/2021
22	ST600D-R	0.37 Max	1.80 Max	0.55 Max	0.04	0.04	0.012	0.67	ES 262/2021
23	B500C B500CWR	0.22 Max	1.60 Max	0.30 Max	0.050	0.050	0.012	0.50	BS 4449-2005-A3-2016 BS-EN 10080-2005 ES 262/2021
24	ST4SP-SSS	0.18_0.23	0.60_0.70	0.25	0.040	0.050	0.300	0.300	SSC Standard (common steel grade, as per Gost380-2005)
25	ST3 SP	0.14_0.22	0.40_0.65	0.25	0.040	0.050	0.012		Gost380-2005
26	ST4 SP	0.18_0.27	0.60_0.70	0.25	0.040	0.050	0.012		Gost380-2005
27	ST5 SP	0.28_0.37	0.60_0.80	0.25	0.040	0.050	0.012		Gost380-2005
28	ST6 SP	0.38_0.49	0.60_0.80	0.25	0.040	0.050	0.012		Gost380-2005

Note:-

SSC is able to produce any national, international, and any steel grade specification according to customer requirements.

Rebar in Bundles



General Packing of Rebar in Bundles		
Weight	Length (L)	Tying
2000 Kg	6 ~ 24 meter	4 ~ 12 equal distance double ties of 6 mm according to bundle length

Sizes	R8	R10	R12	R14	R16	R18	R20	R22	R25	R28	R32	R36	R40
No. of bars in bundle (1)	422	270	188	138	105	83	67	56	43	34	26	21	17

(1) Number of bars per bundle are based on theoretical unit weight per 2 tons bundle

Features	Designation
W	Weldable
HS	High Stress
HD	High Ductility
EQR	Earthquake Resistance
NUC	Suitable for nuclear facilities

Other standards and packing options are available upon request.

Common Produced Quality Standards			
Standard	Origin	Grade	Features
ES 262-2 : 2021 and / or ISO 6935-2:2019	Egypt / Europe	B400BWR	W
		B420DWR	W + HD + EQR
		B500BWR	W + HS
		B500CWR	W + HS + HD
		B500DWR	W + HS + HD + EQR
		B600D-R	HS + HD
		B700D-R	HS + HD
BS 4449 :2005	British	B500A	W + HS
		B500B	W + HS
		B500C	W + HS + HD
ASTM A615	USA	Grade 40	
		Grade 60	HS + NUC
		Grade 80	HS
ASTM A706	USA	Grade 60	HS + HD + EQR + NUC
		Grade 80	HS + HD + EQR
DSTU 3760 :2006	Ukraine	A400C	HD
		A500C	HS + HD
DIN 488 : 2009	Germany	B500B	HS
SASO ASTM A615	KSA	Grade 60	HS + NUC
		Grade 80	HS
NL 50 : 1999	Lebanon	LRB 400	W
		LRB 500	HS
NF A 35-080-1	France	B500B	W + HS
		B500C	W + HS + HD
ST 009:2011	Romania	B500 C	HS
JIS G 3112 :2010	Japan	SD295B	W
		SD490	W + HS
UNI 6407	Italy	FEB 44K	W
ABNT NBR 7480:2007	Brazil	CA-50	W
PN-H-93220:2018-02	Poland	B500SP	W
NS 3576-3:2012 and / or NS EN 10080:2005	Norway / Europe	B500NC	W
SS EN 212540:2014 and / or NS EN 10080:2005	Sweden / Europe	K500B-T	W
		K500C-T	W
SFS 1300:2020	Finland	B500B	W
		B500C	W
LST EN10080:2005	Lithuania	B500B	W
		B500C	W
GOST 34028-2016	Russia	A240	W
		A500	W
		A500CHУ	W
		A500CEУ	W

Spooled Rebar

Benefits for using spooled rebars over regular rebar in coils includes:

1. No twisting over straightened length
2. Homogeneous winding provides smooth unwinding and straightening process
3. Higher sizes up to R25
4. Higher mechanical grades for ALL sizes (like grade 500B of the British standard BS4449:2005 and Gr60 of the American standard ASTM A615)
5. Relatively fixed inner diameter of about 850 mm and fixed spool height of about 800 mm.
6. Lower losses during handling and storage as the spools are more secured than coils due to no spring lose effect.
7. Lower storage volume to ton ratio.

General Packing of spooled rebars			
Spool Weight	Inner Diameter (ID)	Outer Diameter (OD)	Height (H)
1.5 Ton approx	850 mm	1050 mm ~ 1150 mm	800 mm
2.0 Ton approx		1200 mm ~ 1250 mm	

Tying	4 Steel Straps of 30mm width	(standard)

Sizes	R8	R10	R12	R14	R16	R18	R20	R22	R25
Length for 1.5 Ton	3800 m	2432 m	1689 m	1241 m	950 m	751 m	608 m	502 m	389 m
Length for 2.0 Ton	5066 m	3242 m	2252 m	1654 m	1267 m	1001 m	811 m	670 m	519 m

Features	Designation
W	Weldable
HS	High Stress
HD	High Ductility
EQR	Earthquake Resistance
NUC	Suitable for nuclear facilities

Other standards and packing options are available upon request.

Common Produced Quality Standards			
Standard	Origin	Grade	Features
ES 262-2 : 2021 and / or ISO 6935-2:2019	Egypt / Europe	B400BWR	W
		B420DWR	W + HD + EQR
		B500BWR	W + HS
		B500CWR	W + HS + HD
		B500DWR	W + HS + HD + EQR
BS 4449 :2005	British	B500A	W + HS
		B500B	W + HS
BS4482:2005	British	500	W + HS
ASTM A615	USA	Grade 40	
		Grade 60	HS + NUC
ASTM A706	USA	Grade 60	HS + HD + EQR + NUC
DSTU 3760 :2006	Ukraine	A400C	HD
		A500C	HS + HD
DIN 488 : 2009	Germany	B500B	HS
SASO ASTM A615	KSA	Grade 60	HS + NUC
		Grade 80	HS
NL 50 : 1999	Lebanon	LRB 400	W
		LRB 500	HS
NF A 35-080-1	France	B500B	W + HS
		B500C	W + HS + HD
ST 009:2011	Romania	B500 C	HS
JIS G 3112 :2010	Japan	SD295B	W
		SD490	W + HS
UNI 6407	Italy	FEB 44K	W
ABNT NBR 7480:2007	Brazil	CA-50	W
PN-H-93220:2018-02	Poland	B500SP	W
NS 3576-3:2012 and / or NS EN 10080:2005	Norway / Europe	B500NC	W
SS EN 212540:2014 and / or NS EN 10080:2005	Sweden / Europe	K500B-T	W
		K500C-T	W
SFS 1300:2020	Finland	B500B	W
		B500C	W
LST EN10080:2005	Lithuania	B500B	W
		B500C	W
GOST 34028-2016	Russia	A240	W
		A500	W
		A500CHУ	W
		A500CEУ	W

Wire Rods Coils

Sizes & Dimensional tolerances	
Sizes	P5.5 ~ P16
Max/Min Diameter	+/- 0.4 mm
Out of roundness	0.6 mm max

General Packing in Coils			
Coil Weight	Inner Diameter (ID)	Outer Diameter OD	Length (L)
1.5 Ton approx	850 mm ~ 950 mm	1050 mm ~ 1200 mm	1100 mm ~ 1400 mm
2.0 Ton approx			1500 mm ~ 1750 mm
Tying	4 equal distance tying wires of 7mm		(standard)

Other standards and packing options are available upon request.

Common Produced Quality Standards		
Standard	Origin	Grade
ES 262 : 2000	Egypt	240
		280
ES 262-1 : 2015 and / or ISO 6935-1:2007	"Egypt / Europe"	B240C-P
		B240D-P
		B300B-P
		B300C-P
		B300D-P
ASTM A510 (AISI / SAE)	USA	1006
		1008
		1010
		1012
		1015
		1018
		1020
		1022
		1025
BS4482:2005	British	250
GOST 380 :2005	Ukraine	3PS
		3SP
		4PS
		4SP
DIN 17100	Germany	ST37.2
ASTM A 615 M	USA	Grade 40
DSTU 3760 : 2006	Ukraine	A 240 C
SASO 02 :1992	KSA	Normal Strength
NF A 35-016	France	FeE500-2
JIS G 3112 :2010	Japan	SR235
		SR295
EN 10263-4	Europe	20MnB4
		27MnB4

Rebar in Coils

General Packing in Coils			
Coil Weight	Inner Diameter (ID)	Outer Diameter (OD)	Length (L)
1.5 Ton approx	850 mm ~ 950 mm	1050 mm ~ 1200 mm	1100 mm ~ 1400 mm
2.0 Ton approx			1500 mm ~ 1750 mm

Tying	4 equal distance tying wires of 7mm	(standard)

Sizes	R8	R10	R12	R14	R16
Length for 1.5 Ton	3800 m	2432 m	1689 m	1241 m	950 m
Length for 2.0 Ton	5066 m	3242 m	2252 m	1654 m	1267 m

Features	Designation
W	Weldable
HS	High Stress
HD	High Ductility
EQR	Earthquake Resistance
NUC	Suitable for nuclear facilities

Other standards and packing options are available upon request.

Common Produced Quality Standards			
Standard	Origin	Grade	Features
ES 262-2 : 2021 and / or ISO 6935-2:2019	Egypt / Europe	B400BWR	W
		B420DWR	W + HD + EQR
		B500BWR	W + HS
		B500CWR	W + HS + HD
		B500DWR	W + HS + HD + EQR
BS 4449 :2005	British	B500A	W + HS
		B500B	W + HS
BS4482:2005	British	500	W + HS
ASTM A615	USA	Grade 40	
		Grade 60	HS + NUC
ASTM A706	USA	Grade 60	HS + HD + EQR + NUC
DSTU 3760 :2006	Ukraine	A400C	HD
		A500C	HS + HD
DIN 488 : 2009	Germany	B500B	HS
SASO ASTM A615	KSA	Grade 60	HS + NUC
		Grade 80	HS
NL 50 : 1999	Lebanon	LRB 400	W
		LRB 500	HS
NF A 35-080-1	France	B500B	W + HS
		B500C	W + HS + HD
ST 009:2011	Romania	B500 C	HS
JIS G 3112 :2010	Japan	SD295B	W
		SD490	W + HS
UNI 6407	Italy	FEB 44K	W
ABNT NBR 7480:2007	Brazil	CA-50	W
PN-H-93220:2018-02	Poland	B500SP	W
NS 3576-3:2012 and / or NS EN 10080:2005	Norway / Europe	B500NC	W
SS EN 212540:2014 and / or NS EN 10080:2005	Sweden / Europe	K500B-T	W
		K500C-T	W
SFS 1300:2020	Finland	B500B	W
		B500C	W
LST EN10080:2005	Lithuania	B500B	W
		B500C	W
GOST 34028-2016	Russia	A240	W
		A500	W
		A500CHУ	W
		A500CEУ	W

By-Products | المنتجات الثانوية

Oxide Fines	
Fe Total	64.0 % min
CaO	1.0 % max
MgO	0.1 % max
SiO_2	3.0 % max

Mix Lime Fines	
CaO	64.0 % min
MgO	1.0 % max
SiO_2	0.1 % max
L.OI	3.0 % max
Fe_2O_3	
P_2O_2	

Sample Contents	LIME	DOLOLIME
CaO	90% min	55%min
MgO	4% max	30%min
SiO2	2% max	2.5%min
Al2O3	0.5% max	0.5% max
SO3	0.1% max	0.1% max
P2O5	0.1%max	0.1%max
RCO2	5% max	ASTM - BS - DIN - SAE

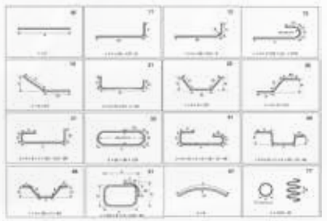
LIME size	DOLOLIME size
0 - 5 mm	5 -50 mm
5 - 15 mm	
15 - 50 mm	

DUST	
CaO	3-8
SiO2	1-3
Fe2O3	35-45
Al2O3	0.1-0.3
MgO	1-3
MnO	3-6
ZnO	8-15
PbO	0.5-2.5

Scales	
Fe2O2	96.0% min
MgO	0.05% max
SiO2	0.5% max
Al2O3	0.15% max
P2O2	0.040% max
S	0.05% max

Slag	
CaO	30~40%
SiO2	15~18%
FeO	20~35%
Al2O3	5~10%
MgO	8~12%
MnO	4~9%
P2O5	1.0~1.5%
S	0.1~0.3%

Cut & Bend | القطع والثنى



Cut to length

Bending Shapes

Technical Specifications

SIZE	FROM 6 TO 25 MM(6 ,8 ,10 ,12 ,16 ,18 ,20 ,22 ,25)
STANDARDS	ASTM / BS / DIN / SAE
SHAPES	STIRRUPS / SHAPED / CUT TO LENGTH

Final Products (most common) | المنتجات النهائية الاكثر شيوعاً

Standard	Origin	Grades	Sizes & Packing			Mechanical Properties					Chemical Properties										
			Plain Wire Rod	Deformed Bar (Rebars)	Deformed Bar (Rebars)	Yield Strength R_{eh} N/mm^2	Tensile Strength R_m N/mm^2	Stress Ratio R_m/R_{eh}	Elongation (min %)		C %	Si %	Mn %	P %	S %	Cu %	B %	As %	Cr %	N %	CEV
			In Coils 1.5 ton / 2.0 ton	In Bundle 6 m : 24 m	In Coils (max size 16) In Spools (max size 25) 1.5 ton / 2.0 ton				A5 After fracture	Agt @ max force											
ES 262 : 2000	Egypt	240	5.5 ----> 16	-	8	240	350	1.1	20 @ 10D	-	0.30	-	-	0.055	0.055	-	-	-	-	-	-
		280				280	450	1.1	18 @ 10D	-											
		360	-	8 ----> 40	10 ----> 25	360	520	1.05	12 @ 10D	-	0.45	-	-	0.055	0.055	-	-	-	-	0.012	-
		400				400	600	1.05	10 @ 10D	-											
ES 262-2 : 2021 and / or ISO 6935-2:2021	Egypt / Europe	B300B-R	5.5 ----> 16	-	8	300	-	1.08	16	5	-	-	-	0.050	0.050	-	-	-	-	-	-
		B300C-R				300	-	1.15	16	7											
		B400B-R	-	8 ----> 40	10 ----> 25	400	-	1.08	14	5											
		B500B-R				500	-	1.08	14	5											
		B400BWR				400	-	1.08	14	5											
		B500BWR				500	-	1.08	14	5	0.24	0.60	1.60	0.050	0.050	-	-	-	-	0.012	0.50
		B500CWR				500	-	1.15	14	7											
		B500DWR				500-650	-	1.25	13	8	0.32	0.60	1.88	0.045	0.045	-	-	-	-	0.012	0.66
		B600D-R				600-720	-	1.25	10	8	0.37	0.60	1.88	0.048	0.048	-	-	-	-	-	0.72
		B700D-R				700-840	-	1.25	10	8	0.53	2.00	2.08	0.048	0.048	-	-	-	-	-	0.85
DIN 17100 / EN10025	Germ / Eur	ST37.2	5.5 ----> 16	-	8	240	370	1.15	20	7	0.21	0.30	1.50	0.050	0.050	-	-	-	-	0.012	0.35
BS 4449 :1997	British	460A	-	8 ----> 40	8 ----> 25	460	-	1.08	14	5	0.25	-	-	0.050	0.050	0.80	0.0008	-	-	0.012	0.51
		460B																			
BS 4449 :2005	British	B500B	-	8 ----> 40	8 ----> 25	500	-	1.08	-	5	0.24	-	-	0.055	0.055	0.80	0.0008	-	-	0.014	0.52
		B500C				500	-	1.15	-	7											
BS 4482:2005	British	Grade 250	5.5 ----> 16	-	-	500	-	1.15	-	5	0.24	-	-	0.055	0.055	0.80	0.0008	-	-	0.012	0.44
ASTM A 615 M	USA	Grade 40	5.5 ----> 16	-	8	280	420	-	12 @ 8in	-	-	-	-	0.055	0.055	-	-	-	-	-	-
		Grade 60	-	8 ----> 40	8 ----> 25	420	620	-	9 @ 8in	-											
		Grade 80				550	690	-	9 @ 8in	-											
ASTM A 706 M	USA	Grade 60	-	8 ----> 40	8 ----> 25	420	620	1.25	9 @ 8in	-	0.30	0.50	1.50	0.035	0.045	-	-	-	-	-	0.55
		Grade 80				550	690	1.25	9 @ 8in	-											
DSTU 3760 :2006	Ukraine	A 240 C	5.5 ----> 16	-	8	240	370	-	25	-	0.22	-	-	0.045	0.045	-	-	-	-	0.012	0.52
		A 400 C	-	8 ----> 40	8 ----> 25	400	500	-	16	3	0.25	-	-	0.045	0.050	-	-	-	-	0.012	0.52
		A 500 C				500	600	-	14	3											
DIN 488 : 2009	Germany	B500B	-	8 ----> 40	8 ----> 25	500	-	1.08	15	-	0.25	-	-	0.050	0.050	-	-	-	-	0.012	0.50
SASO ASTM A615	KSA	Grade 60	-	8 ----> 40	8 ----> 25	420	620	-	9 @ 8in	-	0.30	0.50	1.50	0.035	0.045	-	-	-	-	-	0.55
		Grade 80				550	690	-	9 @ 8in	-											
NL 50 : 1999	Lebanon	LRB 400	----	8 ----> 40	8 ----> 25	395	480	1.22	14	-	0.22	-	-	0.055	0.055	-	-	-	-	-	0.50
		LRB 500	----	8 ----> 40	8 ----> 25	500	550	1.1	12	-	0.24	-	-	0.055	0.055	-	-	-	-	-	0.50
NF A 35-080-1	French	B500B	-	8 ----> 40	8 ----> 25	500	-	1.08	-	5	0.24	-	-	0.055	0.055	0.80	0.0008	-	-	0.014	0.52
		B500C				500	-	1.15	-	7											
UNI 6407	Italy	FEB 44K	-	8 ----> 40	8 ----> 25	430	-	-	14	5	0.22	-	-	0.050	0.050		-	-	-	0.012	0.50
JIS G 3112 :2010	Japan	SR235	5.5 ----> 16	-	-	235	380-520	-	22	-	-	-	-	0.050	0.050	-	-	-	-	-	-
		SR295				295	440-600	-	19	-											
		SD295A	-	8 ----> 40	8 ----> 25	295	440-600	-	17	-											
		SD295B				295-390	440	-	17	-	0.27	0.55	1.5	0.040	0.040	-	-	-	-	-	-
		SD345				345-440	490	-	19	-			1.6							-	0.50
		SD390				390-510	560	-	17	-	0.29	0.55	1.8	0.040	0.040	-	-	-	-	-	0.55
		SD490				490-625	620	-	13	-	0.32										0.60
ES 262-1 : 2015 and / or ISO 6935-1:2007	Egypt / Europe	B240C-P	5.5 ----> 16	-	-	240	-	1.15	16	5	-	-	-	0.060	0.060	-	-	-	-	-	-
		B300B-P				300	-	1.08	16	5											
		B300C-P				300	-	1.15	16	7											
		B300D-P				300	600 max	1.25	19	8											
ASTM A510 (AISI / SAE)	USA	1006	5.5 ----> 16	-	-	-	-	-	-	-	0.08	-	0.25-0.40	0.040	0.050	-	-	-	-	-	-
		1008				-	-	-	-	-	0.10	-	0.30-0.50	0.040	0.050	-	-	-	-	-	-
		1010				-	-	-	-	-	0.08 - 0.13	-	0.30-0.60	0.040	0.050	-	-	-	-	-	-
		1012				-	-	-	-	-	0.10 - 0.15	-	0.30-0.60	0.040	0.050	-	-	-	-	-	-
		1015				-	-	-	-	-	0.13-0.18	-	0.30-0.60	0.040	0.050	-	-	-	-	-	-
		1018				-	-	-	-	-	0.15-0.20	-	0.60-0.90	0.040	0.050	-	-	-	-	-	-
		1020				-	-	-	-	-	0.18-0.23	-	0.30-0.60	0.040	0.050	-	-	-	-	-	-
		1022				-	-	-	-	-	0.18-0.23	-	0.70-1.00	0.040	0.050	-	-	-	-	-	-
		1025				-	-	-	-	-	0.22-0.28	-	0.30-0.60	0.040	0.050	-	-	-	-	-	-
GOST 380 :2005	Ukraine	3PS	5.5 ----> 16	-	-	-	-	-	-	-	0.14 - 0.22	0.05 - 0.15	0.40 - 0.65	-	-	-	-	-	-	-	-
		3SP				-	-	-	-	-	0.14 - 0.22	0.15 - 0.30	0.40 - 0.65	-	-	-	-	-	-	-	-
		4PS				-	-	-	-	-	0.18 - 0.27	0.05 - 0.15	0.40 - 0.70	-	-	-	-	-	-	-	-
		4SP				-	-	-	-	-	0.18 - 0.27	0.15 - 0.30	0.40 - 0.70	-	-	-	-	-	-	-	-

a - R_m/R_{eh} characteristic is 1.02 for sizes below 8mm.
b - A_{gt} characteristic is 1.0 % for sizes below 8mm.
* All CEV <= 0.50 are weldable

Final Products (most common) | المنتجات النهائية الاكثر شيوعاً

Standard	Origin	Grades	Sizes & Packing			Mechanical Properties						Chemical Properties										
			Plain Wire Rod	Deformed Bar (Rebars)	Deformed Bar (Rebars)	Yield Strength R_{eh} N/mm^2	Tensile Strength R_m N/mm^2	Stress Ratio R_m/R_{eh}		Elongation (min %)												
			In Coils 1.5 ton / 2.0 ton	In Bundle 6 m : 24 m	In Coils (max size 16) In Spools (max size 25) 1.5 ton / 2.0 ton					A5 After fracture	Agt @ max force	C %	Si %	Mn %	P %	S %	Cu %	B %	As %	Cr %	N %	CEV
ST 009:2011	Romania	B500 C	-	8 ----> 40	8 ----> 16	500	-	1.15 - 1.35		16	7.5	0.22	-	-	0.050	0.050	0.80	-	-	-	0.012	0.50
ABNT NBR 7480:2007	Brazil	CA-50	-	8 ----> 40	8 ----> 16	500	540	1.08		8	5	0.24	1.45	0.30	0.050	0.050	0.80	-	-	-	0.012	0.50
PN-H-93220:2018-02	Poland	B500SP	-	10 ----> 25	8 ----> 16	500 - 625	-	1.15 - 1.35		16	8	0.22	1.60	0.055	0.050	0.050	0.80	0.0008	-	-	0.012	0.50
NS 3576-3:2012 and / or NS EN 10080:2005	Norway / Europe	B500NC	-	8 ----> 40	8 ----> 16	500 - 650	600	1.15 - 1.35		-	10 --> 14 _ 7.5 16 --> 40 _ 8	0.25	1.60	0.60	0.050	0.050	0.60	0.0008	-	-	0.012	0.48
SS EN 212540:2014 and / or NS EN 10080:2005	Sweden / Europe	K500B-T K500C-T	-	8 ----> 40	8 ----> 16	500	-	1.08 1.15 - 1.35		-	5 7.5	0.25	1.60	0.60	0.050	0.050	0.60	0.0008	-	-	0.012	0.48
SFS 1300:2020	Finland	B500B B500C	-	8 ----> 40	8 ----> 16	500	-	1.08 1.15 - 1.35		-	5 7.5	0.25	1.60	0.60	0.050	0.050	0.60	0.0008	-	-	0.012	0.48
LST EN10080:2005	Lithuania	B500B B500C	-	8 ----> 40	8 ----> 16	500 - 650	-	1.08 1.15 - 1.35		-	5 7.5	0.25	1.60	0.60	0.050	0.050	0.60	0.0008	-	-	0.012	0.48
GOST 34028-2016	Russia	A240 A500 A500CHY A500CEY	-	8 ----> 40	-	240 500	380 600	- 1.05 1.08 1.15 - 1.35		25 14 16	- 2.5 5 7	0.25 0.24	0.70 1.70	0.03 - 0.33 0.95	0.055 0.055	0.055 0.055	0.30 0.35	- -	0.08 -	- -	0.013 0.013	- 0.52
EN 10263-4	Europe	20MnB4 27MnB4	5.5 ----> 16	-	-	- -	580 -	- -		30 30	- -	0.19 - 0.23 0.25 - 0.30	0.90 - 1.20 0.90 - 1.20	0.30 0.15 - 0.30	0.025 0.025	0.025 0.025	0.25 0.25	0.0008 - 0.005 0.0008 - 0.005	- -	0.30 0.30	0.012 0.012	- -

a - R_m/R_{eh} characteristic is 1.02 for sizes below 8mm.
b - A_{gt} characteristic is 1.0 % for sizes below 8mm.
* All CEV <= 0.50 are weldable

شركة السويس للصلب
SUEZ STEEL CO.

Safety Data Sheet

Section 1 - Product Identification and Uses

Common/Trade Name	Hot Rolled Steel Bar / Hot Rolled Plain Coils (HRC)
Synonyms	Carbon steel, HRC,
Chemical Name	Not applicable.
Chemical Formula	Not applicable.
Supplier	**Full Name:** SUEZ STEEL COMPANY S.A.E SUEZ **Address:** Egypt Al Adabiya Road **Postal Code:** Box 35 Suez. Egypt **Tel:** (+2) 062 323 0821 **Fax:** (+2) 062 323 0807 - (+2) 062 323 0802 **Website:** http://www.solbmisr.com
Material Uses	Steel for concrete reinforcing + Steel for downstream industries

Section 2- Hazards Identification

Emergency Overview: **STEEL PRODUCTS AS SOLD BY SSC ARE NOT HAZARDOUS AS PER OSHA 29 CFR 1910, 1926.**

However, individual customer processes, (such as welding, sawing, brazing, grinding, abrasive blasting, and machining) may result in the formation of fumes, dust (combustible or otherwise), and/or particulate that may present the following hazards**:**

Hazardous Statement Steel product is not exposing any hazards; however, any processes are applied such as melting / recycled inside furnaces, welding and grinding may result in the formation of fumes and/or dust that may present some hazards as follows:

H317: Dust/fumes may cause an allergic skin reaction.
H372: Inhalation of dust/fumes causes damage to respiratory tract through prolonged or repeated exposure.
H317 - May cause an allergic skin reaction.

Precautionary statements

P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing dust, fume.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P302+P352 - If on skin: Wash with plenty of water.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Other hazards which do not result in classification

Exposure to massive forms of steel presents no health hazards. Grinding, thermal cutting, or melting may produce dust or fumes. Dust or fumes may contain elemental constituents. Exposure to elemental constituents presents the hazards described in this sheet.

Section 3 - Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits OSHA PEL (mg/m3)
Carbon (C)	7440-44-0	0.02-0.35	Not listed
Manganese (Mn)	7439-96-5	≤ 2.00	5 as manganese
Silicon (Si)	7440-21-3	≤ 1.50	15 as Dust
Phosphorus (P)	7440-50-8	≤ 0.08	0.1 as Phosphorus
Chromium (Cr)	7440-47-3	≤ 0.50	1.0 as chrome
Aluminum (Al)	7429-90-5	≤ 0.20	15 as Dust
Boron (B)	7440-42-8	≤ 0.001	10 as dust
Iron (Fe)	7439-89-6	96.0-99.5	10 iron fumes

NOTE: Various grades of steel will contain different combinations of these elements and/or trace/other materials. Exact specifications for specific products may be available upon request.

Section 4 - First Aid Measures

Eye Contact	In case of overexposure to dusts or fumes, immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eye lids. Get medical attention if irritation persists. Thermal burns should be treated as medical emergencies.
Skin Contact	In case of overexposure to dusts or particulates, wash with soap and plenty of water. Get medical attention if irritation develops or persists. If thermal burn occurs, flush area with cold water and get immediate medical attention.
Inhalation	In case of overexposure to dusts or fumes, remove to fresh air. Get immediate medical attention if symptoms described in this SDS develop.
Ingestion	Not considered an ingestion hazard. However, if excessive amounts of dust or particulates are swallowed, treat symptomatically and supportively. Get medical attention.
Notes to Physician	Inhalation of metal fume or metal oxides may produce an acute febrile state, with cough, chills, weakness, and general malaise, nausea, vomiting, muscle cramps, and remarkable leukocytosis. Treatment is symptomatic, and condition is self-limited in 24-48 hours. Chronic exposure to dusts may result in pneumoconiosis of mixed type.

Section 5 – Fire Fighting Measures

The product is	Does not burn and will not support combustion.
Auto-ignition temperature	Not applicable.
Fire degradation products	This product is stable under normal condition.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Fire Extinguishing procedures	Not applicable.
Flammability	Does not burn and will not support combustion.
Risks of explosion	Not applicable.

Section 6 - Accidental Release Measures

Fire and Explosion Hazards	Steel is stable under normal condition and explosion is unlikely unless molten steel is exposed to water. Some customer processes may generate combustible dust that may require specific precautions when cleaning spills or releases of dust.
Precautions if Material is Spilled or Released	Emergency response is unlikely unless in the form of combustible dust. Avoid inhalation, eye, or skin contact of dusts by using appropriate precautions outlined in this SDS (see section 8). Fine turnings and small chips should be swept or vacuumed and placed into appropriate disposable containers. Keep fine dust or powder away from sources of ignition. Scrap should be reclaimed for recycling. Prevent materials from entering drains, sewers, or waterways. Specific standards and regulations may be applicable to materials generated by individual customer processes. As appropriate, these standards and regulations should be consulted for applicability.
Environmental precaution	Some grades of steel may contain reportable quantities of alloying elements. See Section 15 for additional information.
Waste Disposal Methods	Dispose of used or unused product in accordance with applicable Local regulations.

Section 7 - Handling and storage

Storage temperature	Stable under normal temperatures and pressures.
Precautions to be Taken in Handling and Storing	Store away from strong oxidizers. Dusts and/or powders, alone, or combined with process specific fluids, may form explosive mixtures with air. Applicable Federal, state and local laws and regulations may require testing dust generated from processing of steel. products to determine if it represents a fire or explosion hazard and to determine appropriate protection methods. Avoid breathing dusts or fumes.

Section 8 – Protective Measures

Operations with potential for generating high concentrations of airborne particulates or fumes should be evaluated and controlled as necessary**.**

Eye Protection - Use safety glasses. Dust resistant safety goggles are recommended under circumstances where particles could cause mechanical injury such as grinding or cutting. Face shield should be used when welding or cutting.

Skin - Appropriate protective gloves should be worn as necessary. Good personal hygiene practices should be followed including cleansing exposed skin several times daily with soap and water, and laundering or dry-cleaning soiled work clothing.

Respiratory Protection - NIOSH/MSHA approved dust/fume/mist respirator should be used to avoid excessive exposure. See Section 3 for component material information exposure limits. If such concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable

respirator use, fitting, and training standards and regulations.

Ventilation - Provide general and/or local exhaust ventilation to control airborne levels of dust or fumes below exposure limits.

Exposure Guidelines - No permissible exposure limits (PEL) or threshold limit values (TLV) exist for steel. See Section 3 for component materials. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

Section 9 - Physical Data

Physical State and Appearance	**Silver grey to grey black with metallic luster** Solid: Coil (Nominal diameter 5.5 - 14 mm). Solid: Rebar (Nominal diameter 8 - 40 mm).
PH	Not applicable
Odor Threshold	Not available.
Volatility	Not available.
Melting Point	~1537 ^{o}C.
Boiling Point	Not applicable
Specific Gravity	~7.854 MT/m^3.
Vapor Density (air = 1)	Not applicable.
Explosive properties	Non explosive.

Section 10 – Reactivity and Stability

Stability	The product is stable under general conditions.
Condition to avoid	Steel at temperatures above the melting point may liberate fumes containing oxides of iron and alloying elements. Avoid generation of airborne fume.
Degradability	Not available.
Products of Degradation	Not available.
Corrosively	Don't store near strong oxidizers or acids.
Reactivity	Not available.
Hazardous Polymerization	Will not occur
Incompatibility (Materials to Avoid)	Reacts with strong acids to form hydrogen gas. Do not store near strong oxidizers
Hazardous Decomposition Products	Metallic fumes may be produced during welding, burning, grinding, and possibly machining or any situation with the potential for thermal decomposition. Refer to ANSI Z49.

Section 11 - Toxicological Properties

The primary component of this product is iron. Long-term exposure to iron dusts or fumes can result in a condition called siderosis which is considered to be a benign pneumoconiosis. Symptoms may include chronic bronchitis, emphysema, and shortness of breath upon exertion. Penetration of iron particles in the skin or eye may cause an exogenous or ocular siderosis which may be characterized by a red-brown pigmentation of the affected area. Ingestion overexposures to iron may affect the gastrointestinal, nervous, and hematopoietic system and the liver. Iron and steel founding, but not iron or iron oxide, has been listed as carcinogenic (Group 1) by IARC.

When this product is welded, fumes are generated. Welding fumes may be different in composition from the original welding product, with the chief component being ordinary oxides of the metal being welded. Chronic health effects (including cancer) have been associated with the fumes and dusts of individual component metals (see above), and welding fumes as a general category have been listed by IARC as a carcinogen (Group 2B). There is also limited evidence that welding fumes may cause adverse reproductive and fetal effects. Evidence is stronger where welding materials contain known reproductive toxins, e.g., lead, which may be present in the coating material of this product.

Breathing fumes or dusts of this product may result in metal fume fever, which is an illness produced by inhaling metal oxides. These oxides are produced by heating various metals including cadmium, zinc, magnesium, copper, antimony, nickel, cobalt, manganese, tin, lead, beryllium, silver, chromium, aluminum, selenium, iron, and arsenic. The most common agents involved are zinc and copper.

This product may contain small amounts of manganese. Prolonged exposure to manganese dusts or fumes is associated with "manganism", a Parkinson-like syndrome characterized by a variety of neurological symptoms including muscle spasms, gait disturbances, tremors, and psychoses.

This product may contain small amounts of cadmium. Primary target organs for cadmium overexposure are the lung and the kidney. Because of its cumulative nature, chronic cadmium poisoning can cause serious disease which takes many years to develop and may continue to progress despite cessation of exposure. Progression of the disease may not reflect current exposure conditions. It is also capable of causing a painful osteomalacia called "Itai-Itai" in postmenopausal women, and has caused developmental effects and/or reproductive effects in male and female animals. Cadmium is a listed carcinogen by NTP, OSHA, and IARC (Group 1).

This product may contain small amounts of chromium. Prolonged and repeated overexposure to chromium dusts or fumes may cause skin ulcers, nasal irritation and ulceration, kidney damage and cancer of the respiratory system. Chromium is skin sensitizer. Cancer is generally attributed to the hexavalent (+6) form of chromium which is listed as a carcinogen by NTP and IARC (Group 1).

This product may contain small amounts of nickel. Prolonged and repeated contact with nickel may cause sensitization dermatitis. Inhalation of nickel compounds has caused lung damage as well as sinus, nasal and lung cancer in laboratory animals. Nickel is a listed carcinogen by NTP and IARC (Group 1). This product may contain small amounts of vanadium. Adverse effects from dermal, inhalation or parenteral exposure to various vanadium compounds have been reported. The major target for vanadium pentoxide toxicity is the respiratory tract. Fumes or dust can cause severe eye and respiratory irritation, and systemic effects. Chronic bronchitis, green tongue, conjunctivitis, pharyngitis, rhinitis, rales, chronic productive cough, and tightness of the chest have been reported following overexposure. Allergic reactions resulting from skin and inhalation exposures have also been reported. A statistical association between vanadium air levels and lung cancer has been suggested, but vanadium currently is not regarded as a human carcinogen.

This product may contain small amounts of lead. Lead can accumulate in the body. Consequently, exposure to fumes or dust may produce signs of polyneuritis, diminished vision and peripheral neuropathy, such as tingling and loss of feeling in fingers, arms and legs. Lead is a known reproductive and developmental toxin. It is also associated with central nervous system disorders, anemia, kidney dysfunction and neurobehavioral abnormalities. The brain is a major target organ for lead exposure. Elemental lead is listed as an IARC 2B carcinogen.

The product may contain small amounts of copper. Copper dust and fumes can irritate the eyes, nose and throat causing coughing, wheezing, nosebleeds, ulcers and metal fume fever. Other effects from repeated inhalation of copper fumes include a metallic or sweet taste, and discoloration of skin, teeth or hair. Copper also may cause an allergic skin reaction. Overexposure to copper can affect the liver.

Section 12 - Ecological Information

Aquatic Ecotoxicological Data	-	No specific information available on this product.
Environmental Fate Data	-	No specific information available on this product.

Section 13 - Disposal consideration

Disposal	Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. Dispose in accordance with federal, state, and local health and environmental regulations. Prevent materials from entering drains, sewers, or waterways.

Section 14 - Transport Information

DOT Proper Shipping Name - Not regulated

DOT Hazard Classification - Not regulated

UN/NA Number - Not applicable

DOT Packing Group - Not applicable

Labeling Requirements - Not applicable

Placards - Not applicable

DOT Hazardous Substance - Not applicable

DOT Marine Pollutant - Not applicable

Section 15 - Regulatory Information

Egyptian Labor law	Steel is not classified as hazardous material.
US OSHA Hazards	This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dusts and fumes from this product may be combustible or hazardous and require protection to comply with applicable Federal, state and local laws and regulations.

Toxic Substances Control Act (TSCA)

Components of this product are listed on the TSCA Inventory.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Steel is not reportable; however, it contains hazardous substances that may be reportable if released in pieces with diameters less than or equal to 0.004 inches .

Section 16 - Other Information

Other information	This SDS covers **SSC** product as delivered from **SSC** mill, but does not include chemicals that may be applied by subsequent handlers and/or distributors of this product. This could include a variety of materials including oils, paints, galvanization, etc. that are not included in this SDS. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.
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