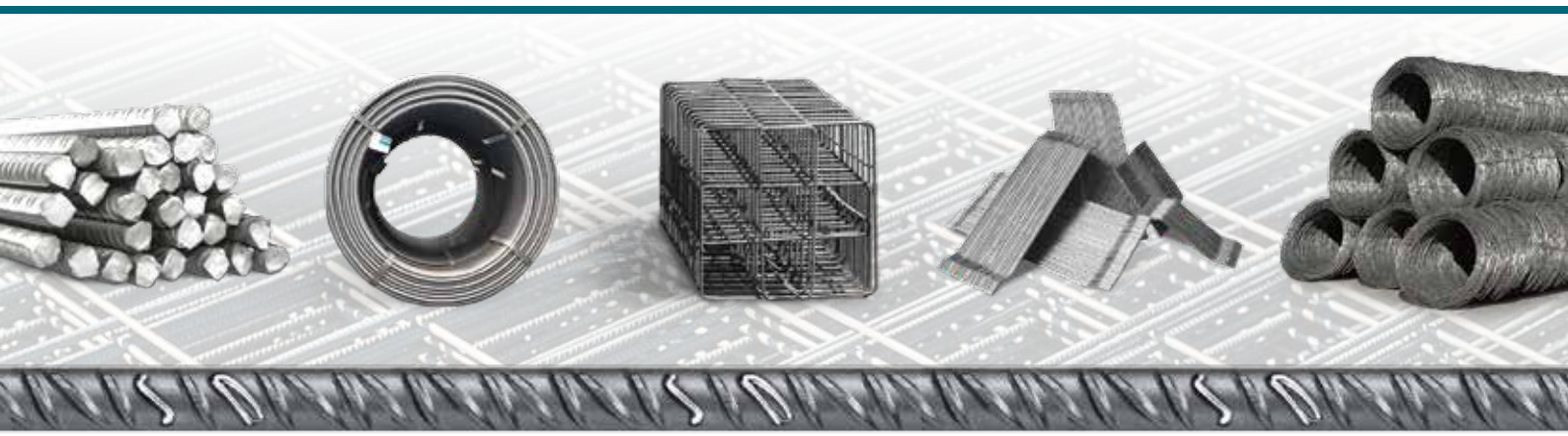
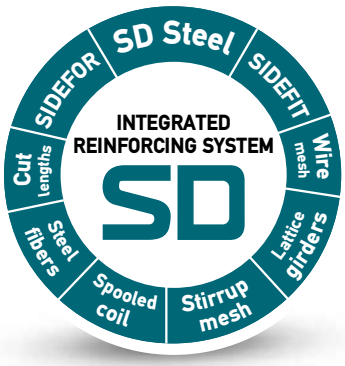
Product **catalogue**

SIDENOR





SD Integrated concrete reinforcing steel

With more than 55 years

of industry know-how and expertise in steel, Sidenor, Stomana Industry and their subsidiaries constitute the steel production and trading segment of Viohalco offering high quality and innovative solutions to their customers.

Sidenor is a leading producer of steel products in South East Europe. Its extensive product portfolio, which includes long, flat and downstream steel products, is manufactured across nine facilities in Greece, Bulgaria, Romania, FYROM and Australia.
Project locations span Germany, the Balkans, Algeria, Israel and the U.S.A. Sidenor Group is a global supplier providing a full range of solutions in the steel sector, to cater to the complex needs of its clients worldwide.

The key features of the products of Sidenor, Stomana Industry and their subsidiaries are:

- **outstanding quality;** strict adherence to applicable standards and regulations
- **excellent customer service** due to extensive sales and logistics network
- **innovative characteristics**, which provide customers and end users with added value

All products are mainly used in major - construction projects, in various industrial applications, in ship-building, in the automotive industry, in the energy sector, etc.

www.sidenor.gr

SIDENOR

Sidenor offers the integrated reinforcing system SD satisfying the broad needs and quality requirements of all reinforced concrete structures.

SD Integrated concrete reinforcing steel

SD concrete reinforcing steel

(bars and coils)

Sidenor, with more than 55 years experience, produces weldable high strength concrete reinforcing steel, meeting the latest standards for the worldwide markets.
SD Concrete reinforcing steel is available in diameters of 8 up to 40mm, in straight bars of 12 and 14m and in bundles weighing about 2tn.
SD Concrete reinforcing steel is also available in standard coils in diameters of 8, 10, 12, 14 and 16mm, as well as in spooled coils in diameters 8, 10, 12, 14, 16, 18 and 20mm.

TYPE	STEEL GRADE	FORM DIAMETER	LENGTH TOLERANCE	PACKING WEIGHT
Hot rolled, weldable, ribbed concrete reinforcing steel	Grade B500B (ex BSt500S) according to DIN 488	Straight bars: diameter from 8 to Ø40mm Standard coils: diameter from 8 to Ø16mm Spooled coils: diameter from 8 to Ø20mm	Length of straight bars: 12m and 14m with tolerance -0 /+100mm	Bundles of straight bars approximately 2tn per bundle Standard coils approximately 1.25-1.45tn per coil Spooled coils from 2 up to 4tn per coil

SD Integrated concrete reinforcing steel

SD Steel technical characteristics

Diameters, weights and tolerances (bars)

Nominal diameter (mm)	Nominal cross-section (mm²)	Nominal weight (kg/m)	Weight tolerance (%)
8	50.3	0.395	±4
10	78.5	0.617	±4
12	113.0	0.888	±4
14	154.0	1.210	±4
16	201.0	1.580	±4
18	254.0	2.000	±4
20	314.0	2.470	±4
22	380.0	2.980	±4
25	491.0	3.850	±4
28	616.0	4.830	±4
32	803.8	6.310	±4
40	1257.0	9.860	±4

Diameters (coils)

	Standard coils	Spooled coils
Internal diameter (mm)	950	850
External diameter (mm)	1150 - 1200	1150 - 1400
Height (mm)	1150 - 1200	820

Chemical composition and mechanical properties

Grade	Heat chemical analysis (%) max						Mechanical properties					Mandrel diameter for		
												Bend-rebend test		
	C	S	P	N	Cu	Ceq	Yield strength Re (MPa) min	Tensile strength Rm (MPa) min	Rm / Re min	Re,act /Re,nom max	Total elongation at max force Agt (%) min	d≤16	16<d≤28	28<d≤40
B500B according to DIN 488	0.22 (0.24)	0.050 (0.055)	0.050 (0.055)	0.012 (0.014)	0.60 (0.65)	0.50 (0.52)	500	550	1.10	1.30	5	5d	8d	10d

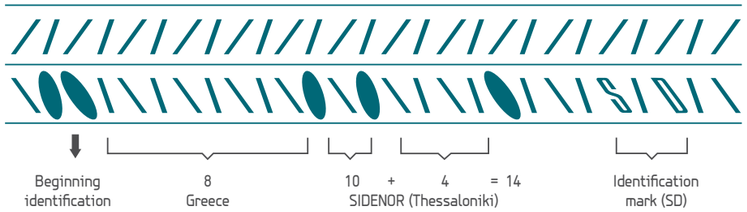
Note: The values in parentheses refer to the finished product

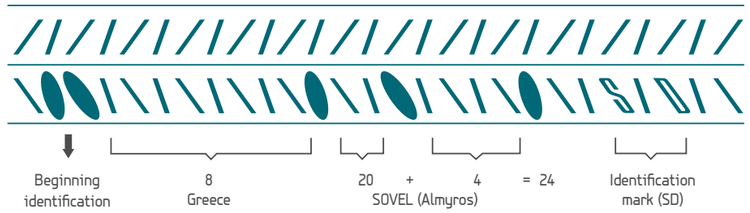
Quality management

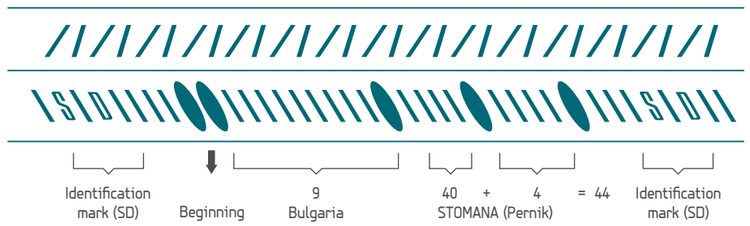
Sidenor Group implements a well-organized quality management system, fully adapted to the needs of modern steel production industry, certified according to ISO 9001, which ensures the manufacturing of products in compliance with the most rigorous standards and regulations.
The quality of steel products is constantly controlled during all phases of the production process by the quality control departments. The quality control process includes extensive chemical analyses, metallographic tests, measurements of geometrical characteristics and mechanical tests carried out in the state-of-the-art equipped laboratories of the Company.
The integrated radioactivity detection network-both in raw materials and in finished products, ensures radioactive-free steel products.

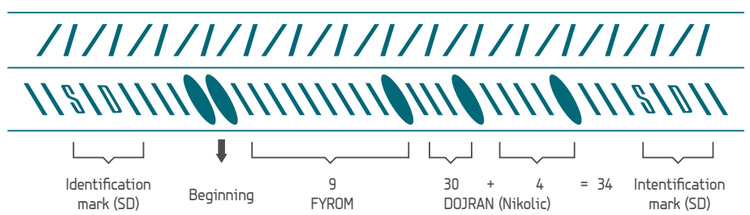
Standard steel grades	
B500C acc. to ELOT 1421-3	(Greece)
B500B acc. to DIN 488	(Germany)
B500C acc. BS4449:2005	(UK)
B500B and B500C acc. to BDS 9252	(Bulgaria)
B500B acc. to HRN 1130-2:2008	(Croatia)
PC52 acc. to SR 438-1/2012	(Romania)
B450C acc. to D.M. 14.01.2008	(Italy)
S400W and S500W-C acc. to SI 4466-3	(Israel)
500N acc. to AS/NZS 4671	(Australia)
Grade 40 and 60 acc. to ASTM A615	(USA)

SD Concrete reinforcing steel marking









Cut-to-length SD rebars

In order to satisfy the needs of customer's demand by offering custom made steel solutions, Sidenor provides a wide range of Cut-to-length straight bars of SD reinforcing steel, grade B500B - DIN 488. High availability and fast servicing of the required cut-to-length rebars lead to faster forming and fitting that yields to lower construction cost.

Cut-to-lenght SD rebars

Diameter (mm)	Length (m)	Diameter (mm) (in stock)	Length (m) (in stock)
From Ø8 to Ø40	1.60 - 12.00 (min. pitch 10mm)	Ø20, Ø22, Ø25 Ø28, Ø32	8.00
			9.00
			10.00
			11.00

All other special lengths (not included in our product range) are available upon request and delivery times are scheduled by agreement.

TYPE	STEEL GRADE	FORM DIAMETER	PACKING WEIGHT
Hot rolled, weldable, ribbed concrete reinforcing steel	Grade B500B according to DIN 488	Straight bars Diameter from Ø8 to Ø40mm	Bundles of straight bars Weight: approximately 1tn per bundle

SD Spooled coils

The hot spooled rebar coils are produced in grade B500B according to DIN488 and in diameters 8, 10, 12, 14, 16, 18 and 20mm. Their main advantages are:

- No residual internal stress or axial torsion
- Safe coil feeding/uncoiling
- Constant and consistent material quality
- Higher efficiency and productivity of the downstream cold processing lines, as well as higher material yield
- Substantial reduction in coil handling, transportation and storage needs

SD Spooled coils

Coil weight (kg)	Coil height (mm)	Internal diameter (mm)	External diameter (mm)
2000	820	850	1150
4000	820	850	1400

TYPE	STEEL GRADE	FORM DIAMETER	PACKING WEIGHT
Hot rolled, weldable, ribbed concrete reinforcing steel	Grade B500B according to DIN 488	Spooled coils diameter from Ø8 to Ø20mm	Coil height 820mm Coil weight 2tn up to 4tn

SIDEFIT Special mesh

SIDEFIT Special mesh reinforcements are intended to meet all reinforcement needs that exist in technical and construction works. They are applied mainly to form a reinforcing grid for surface structures (slabs, walls, etc.). Moreover, they can cover all special needs of transverse reinforcement for linear supporting structures (columns, beams etc.), which are not covered by the standard range of SD column mesh reinforcements.
SIDEFIT reinforcements modernise existing reinforcing practice, combining guaranteed industrial quality and significant time and construction cost-savings.
Depending on the arrangement of the main reinforcement, in one or two directions, SIDEFIT reinforcements are divided into two categories:

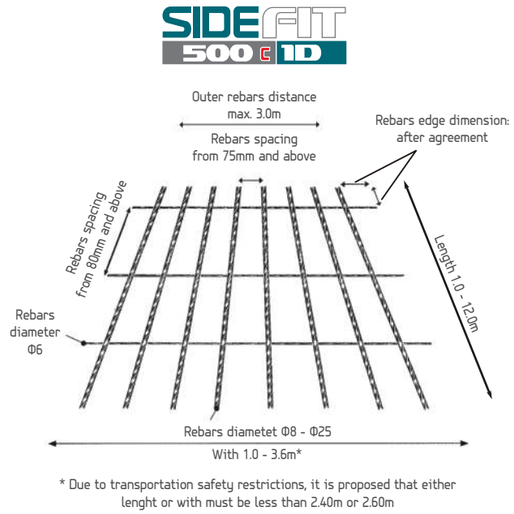
- In SIDEFIT 1D mesh sheets the main reinforcement is arranged in one direction and in the other direction small-diameter (Ø6) bars of wire rod SAE 1010 are welded. They hold the reinforcement at the desired spacing.
- In SIDEFIT 2D mesh sheets the main reinforcement is welded in both directions of the mesh (Ø8-Ø25 in one direction and Ø8-Ø16 in the other).

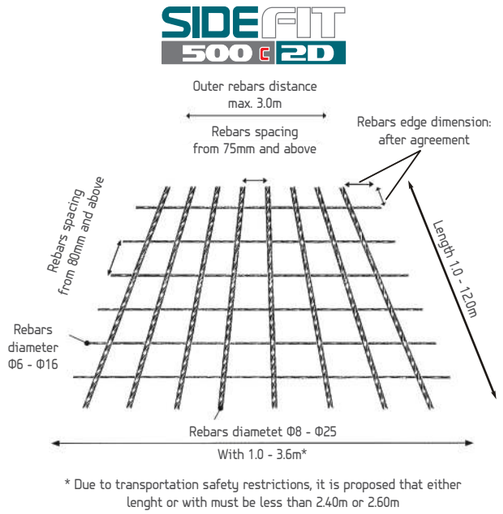
It is possible to create complex shapes and hooks, depending on the weight of the sheet.
The selection of the position and the number of bars of the structure to be reinforced is done by adhering strictly to the needs of the design.

ADVANTAGES

- Cost savings, due to easy fitting. Moreover, in case of grids, overlapping is avoided, as there is a single, independent, reinforcement in each direction.
- Easy to install, due to the light weight per m2 and accurate fitting to the dimensions required.
- They can be used for different kinds of supporting structures (linear, surface) and types of reinforcement (grids, supporting ties, etc.)
- Wide range of dimensions of up to 12.0m in length and 3.6m in width.

SIDEFIT special concrete reinforcing mesh stands out for the wide range of possibilities it offers and its flexibility regarding their main parameters: diameter and spacing of reinforcement, mesh dimensions etc. Its fabrication from straight SD steel bars, grade B500B ensures accuracy in geometry and enables easy forming.





Production range

	From	To
Diameter of line rebars (mm)	Ø8	Ø25
Diameter of cross rebars (mm)	Ø6	Ø16
Length of mesh (m)	1.0	12.0
Width of mesh (m)	1.0	3.6
Distance between opposite rebars	–	3.2
Space between line rebars (mm)	from 75mm and up with stable or variable pitch	
Space between cross rebars (mm)	from 75mm and up with stable or variable pitch	
Edge length (mm)	according to request	

Theoretical weights and bundles

Ø8			100mm spacing			125mm spacing			150mm spacing			200mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
0.80	X	3.00	11.48	30	344	9.60	30	288						
1.00	X	3.00	13.85	30	416	10.84	30	325	9.90	30	297	7.92	30	238
1.20	X	3.00	16.22	30	487	13.37	30	401	11.48	30	344	9.11	30	273
1.40	X	3.00	18.59	30	558	15.27	30	458	13.06	30	392	10.29	30	309
1.60	X	3.00	21.62	30	649	17.83	30	535	14.64	30	439	11.48	30	344
1.80	X	3.00	23.99	30	720	19.73	30	592	16.88	30	507	13.33	30	400
2.00	X	3.00	27.03	30	811	22.29	30	669	18.46	30	554	14.51	30	435
2.20	X	3.00	29.40	30	882	24.19	30	726	20.04	30	601	15.70	30	471
2.40	X	3.00	31.77	30	953	26.08	30	782	21.62	30	649	16.88	30	507
2.60	X	3.00	34.81	15	522	27.98	15	420	23.87	30	716	18.74	30	562
2.80	X	2.60	32.22	15	483	26.11	15	392	22.79	30	684	17.26	30	518
3.00	X	2.60	34.85	15	523	27.77	15	417	24.22	30	726	18.29	30	549
3.20	X	2.60	35.75	15	536	29.43	15	441	25.64	15	385	19.32	15	290
3.40	X	2.60	37.80	15	567	31.09	15	466	27.06	15	406	20.35	15	305
3.60	X	2.60	40.44	15	607	33.33	15	500	29.06	15	436	21.95	15	329
3.80	X	2.60	42.49	15	637	34.98	15	525	30.48	15	457	22.98	15	345
4.00	X	2.60	44.54	15	668	36.64	15	550	31.90	15	479	24.00	15	360
4.20	X	2.60	46.60	15	699	38.30	15	575	33.33	15	500	25.03	15	375
4.40	X	2.60	49.23	15	738	40.54	15	608	35.32	15	530	26.63	15	400
4.60	X	2.60	51.28	15	769	42.20	15	633	36.75	15	551	27.66	15	415
4.80	X	2.60	53.34	15	800	43.86	15	658	38.17	15	573	28.69	15	430
6.00	X	2.60	66.81	15	1002	54.96	15	824	47.85	15	718	36.00	15	540
7.00	X	2.60	77.66	15	1165	63.84	15	958	55.54	15	833	41.72	15	626

Ø10			100mm spacing			125mm spacing			150mm spacing			200mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
1.00	X	3.00	20.51	30	615				14.34	30	430	11.25	30	338
1.20	X	3.00	24.21	30	726	19.77	30	593	16.81	30	504	13.10	30	393
1.40	X	3.00	27.91	30	837	22.73	30	682	19.27	30	578	14.96	30	449
1.60	X	3.00	32.28	30	968	26.36	30	791	21.74	30	652	16.81	30	504
1.80	X	3.00	35.98	30	1079	29.32	30	880	24.88	30	746	19.32	30	580
2.00	X	3.00	40.35	30	1211	32.95	30	989	27.34	30	820	21.17	30	635
2.20	X	3.00	44.05	30	1321	35.91	30	1077	29.81	30	894	23.03	30	691
2.40	X	3.00	47.75	30	1432	38.87	30	1166	32.28	30	968	24.88	30	746
2.60	X	3.00	52.86	15	793	41.83	15	627	35.41	30	1062	27.39	30	822
2.80	X	2.60	48.38	15	726	39.17	15	587	33.98	30	1019	25.34	30	760
3.00	X	2.60	52.17	15	783	41.76	15	626	36.20	30	1086	26.95	30	808
3.20	X	2.60	54.22	15	813	44.35	15	665	38.43	15	576	28.55	15	428
3.40	X	2.60	57.43	15	861	46.94	15	704	40.65	15	610	30.16	15	452
3.60	X	2.60	61.21	15	918	50.11	15	752	43.44	15	652	32.34	15	485
3.80	X	2.60	64.42	15	966	52.70	15	790	45.67	15	685	33.94	15	509
4.00	X	2.60	67.63	15	1014	55.29	15	829	47.89	15	718	35.55	15	533
4.20	X	2.60	70.84	15	1063	57.88	15	868	50.11	15	752	37.15	15	557
4.40	X	2.60	74.63	15	1119	61.05	15	916	52.91	15	794	39.33	15	590
4.60	X	2.60	77.83	15	1168	63.64	15	955	55.13	15	827	40.94	15	614
4.80	X	2.60	81.04	15	1216	66.23	15	994	57.35	15	860	42.54	15	638
6.00	X	2.60	101.45	15	1522	82.94	15	1244	71.83	15	1077	53.32	15	800
7.00	X	2.60	118.07	15	1771	96.47	15	1447	83.51	15	1253	61.92	15	929

SD Integrated concrete reinforcing steel

Ø12			100mm spacing			125mm spacing			150mm spacing			200mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
1.00	X	3.00							19.76	30	593	15.32	30	460
1.20	X	3.00	33.97	15	510	27.57	30	827	23.31	30	699	17.98	30	539
1.40	X	3.00	39.29	15	589	31.83	30	955	26.86	30	806	20.65	30	619
1.60	X	3.00	45.29	15	679	36.10	30	1083	30.41	30	912	23.31	30	699
1.80	X	3.00	50.62	15	759	41.03	30	1231	34.63	30	1039	26.64	30	799
2.00	X	3.00	56.61	15	849	45.29	30	1359	38.18	30	1146	29.30	30	879
2.20	X	3.00	61.94	15	929	49.55	30	1487	41.74	30	1252	31.97	30	959
2.40	X	3.00	67.27	15	1009	53.81	30	1614	45.29	30	1359	34.63	30	1039
2.60	X	3.00	73.26	15	1099	58.74	30	1762	49.51	30	1485	37.96	30	1139
2.80	X	2.60	68.11	15	1022	55.10	30	1653	47.64	30	1429	35.21	30	1056
3.00	X	2.60	73.30	15	1100	58.83	30	1765	50.84	30	1525	37.52	30	1126
3.20	X	2.60	76.77	15	1152	62.56	15	938	54.03	15	811	39.83	15	597
3.40	X	2.60	81.39	15	1221	66.29	15	994	57.23	15	858	42.14	15	632
3.60	X	2.60	86.58	15	1299	70.60	15	1059	61.01	15	915	45.02	15	675
3.80	X	2.60	91.20	15	1368	74.33	15	1115	64.20	15	963	47.33	15	710
4.00	X	2.60	95.82	15	1437	78.06	15	1171	67.40	15	1011	49.64	15	745
4.20	X	2.60	100.43	15	1506	81.78	15	1227	70.60	15	1059	51.95	15	779
4.40	X	2.60	105.63	15	1584	86.09	15	1291	74.37	15	1116	54.83	15	823
4.60	X	2.60	110.25	15	1654	89.82	15	1347	77.57	15	1164	57.14	15	857
4.80	X	2.60	114.86	15	1723	93.55	15	1403	80.76	15	1211	59.45	15	892
6.00	X	2.60	143.72	10	1437	117.08	15	1756	101.10	15	1516	74.46	15	1117
7.00	X	2.60	167.39	10	1674	136.31	15	2045	117.66	15	1765	86.58	15	1299

Ø14			100mm spacing			125mm spacing			150mm spacing			200mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
1.20	X	2.60	39.48	15	592	32.22	20	644	27.87	20	557	20.61	20	412
1.33	X	2.60	43.57	15	654	35.53	20	711	30.70	20	614	22.65	20	453
1.50	X	2.60	49.50	15	743	40.42	20	808	34.98	20	700	25.90	20	518
1.56	X	2.60	51.39	15	771	41.95	20	839	36.29	20	726	26.85	20	537
1.70	X	2.60	55.79	15	837	45.51	20	910	39.33	20	787	29.05	20	581
1.75	X	2.60	57.36	15	860	46.78	20	936	40.42	20	808	29.84	20	597
2.00	X	2.60	65.81	15	987	53.71	20	1074	46.45	20	929	34.35	20	687
2.33	X	2.60	76.19	15	1143	62.09	20	1242	53.63	20	1073	39.54	20	791
2.40	X	2.60	78.39	15	1176	63.87	20	1277	55.16	20	1103	40.64	20	813
2.60	X	2.60	84.68	15	1270	68.95	15	1034	59.51	15	893	43.78	20	846
2.80	X	2.60	90.97	15	1365	74.03	15	1110	63.87	15	958	46.93	20	939
3.00	X	2.60	97.84	15	1468	79.69	15	1195	68.80	15	1032	50.68	20	1013
3.50	X	2.60	113.57	15	1704	92.40	15	1386	79.69	15	1195	58.52	15	878
4.00	X	2.60	129.88	15	1948	105.68	15	1585	91.16	15	1367	66.96	15	1004

Sidefit 2D	Spacing	Dimensions (m)	Theoretical sheet weight (kg)	No of sheets per bundle	Theoretical sheet weight (kg)
Ø8 / Ø8	150/150mm	2.20 x 3.60	35.31	30	1059
	200/200mm	2.20 x 3.60	26.70	30	801
Ø10 / Ø10	150/150mm	2.20 x 3.60	55.16	30	1655
	200/200mm	2.20 x 3.60	41.71	30	1251

SD Stirrup mesh (in stock) SIDEFIT 1D and 2D (in stock) SIDEFIT 1D (upon order) Special request

SD Stirrup reinforcement mesh

SD stirrup reinforcing mesh for beam, column and shear wall stirrups is produced from straight rebars - grade B500B according to DIN 488 in diameters 8, 10, and 12mm. The stirrup cages are then formed in fabrication plants or in job site, leading to high precision in geometry, stirrup distance and stability.
The forming of the stirrup cages from SD mesh is considerably faster, accurate and covers most of the cross-section geometries of beams, columns and shear walls, offering high precision in execution with high productivity and overall quality.

TYPE	STEEL GRADE	FORM DIAMETER	PACKING WEIGHT
Prefabricated mesh for stirrup reinforcement for columns, beams and shear walls	Line wires: concrete reinforcing steel, grade B500B according to DIN 488, diameter Ø8, Ø10 and Ø12 Cross wires: SAE 1010 wire rod, according to ASTM A510M	Sheets: length from 0.80 to 3.00m and width 2.60 and 3.00m	Sheet stacks: weight from 9.60 to 73.30Kg per sheet, depending on dimensions and type

Theoretical weights and bundles

Ø8			100mm spacing			125mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
0.80	X	3.00	11.48	30	344	9.60	30	288
1.00	X	3.00	13.85	30	416	10.84	30	325
1.20	X	3.00	16.22	30	487	13.37	30	401
1.40	X	3.00	18.59	30	558	15.27	30	458
1.60	X	3.00	21.62	30	649	17.83	30	535
1.80	X	3.00	23.99	30	720	19.73	30	592
2.00	X	3.00	27.03	30	811	22.29	30	669
2.20	X	3.00	29.40	30	882	24.19	30	726
2.40	X	3.00	31.77	30	953	26.08	30	782
2.60	X	3.00	34.81	15	522	27.98	15	420
2.80	X	2.60	32.22	15	483	26.11	15	392
3.00	X	2.60	34.85	15	523	27.77	15	417

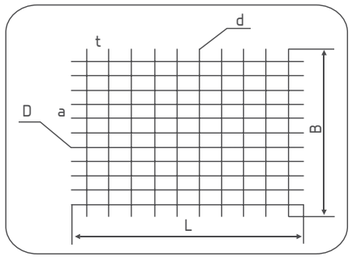
Ø10			100mm spacing			125mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
1.00	X	3.00	20.51	30	615			
1.20	X	3.00	24.21	30	726	19.77	30	593
1.40	X	3.00	27.91	30	837	22.73	30	682
1.60	X	3.00	32.28	30	968	26.36	30	791
1.80	X	3.00	35.98	30	1079	29.32	30	880
2.00	X	3.00	40.35	30	1211	32.95	30	989
2.20	X	3.00	44.05	30	1321	35.91	30	1077
2.40	X	3.00	47.75	30	1432	38.87	30	1166
2.60	X	3.00	52.86	15	793	41.83	15	627
2.80	X	2.60	48.38	15	726	39.17	15	587
3.00	X	2.60	52.17	15	783	41.76	15	626

Ø12			100mm spacing		
Sheet length	x	Sheet width	Sheet weight (kg)	No. of sheet per bundle	Theor. bundle weight (kg)
1.00	X	3.00			
1.20	X	3.00	33.97	15	510
1.40	X	3.00	39.29	15	589
1.60	X	3.00	45.29	15	679
1.80	X	3.00	50.62	15	759
2.00	X	3.00	56.61	15	849
2.20	X	3.00	61.94	15	929
2.40	X	3.00	67.27	15	1009
2.60	X	3.00	73.26	15	1099
2.80	X	2.60	68.11	15	1022
3.00	X	2.60	73.30	15	1100

Mesh of 2.80m and 3.00m lengths, is also produced with 3.00m width

SD Wire mesh

Sidenor produces a wide range of wire mesh B500A (ex BSt500M) wires according to DIN 488. Wire mesh sheets are manufactured from welded transverse and longitudinal wires cold-drawn from wire rod. The diameters of the wires range from Ø4.0 to Ø10.0mm in 2.15x5.00 or 2.15x6.00m external dimensions. Other sizes and configurations can also be produced upon request.



Wire mesh: geometric parameters

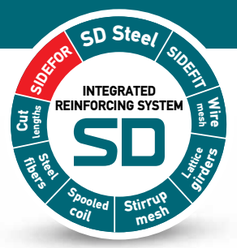
TYPE	STEEL GRADE	FORM DIAMETER	PACKING WEIGHT
Wire mesh	Cross and longitudinal wires: B500A (ex BSt500M) according to DIN 488, produced from cold-drawn wire rod	Sheets 2.15m wide and 5.00m or 6.00m long	Sheet stacks weighing from 14 to 163kg per sheet, depending on type

Dimensions and weights

Mesh types	Wire diameters		Wire distances		Sheet dimensions		Weights	
	Longitudinal D mm	Transverse d mm	"a" longitudinal Wires mm	"t" Transverse Wires mm	Length "L" mm	Width "B" mm	kg/m²	kg/sheet
R84	4.0	4.0	150	250	6.000	2.150	1.098	14.158
R92	4.2	4.2	150	250	6.000	2.150	1.152	14.751
R126	4.0	4.0	100	250	6.000	2.150	1.423	18.359
R131	5.0	4.2	150	250	6.000	2.150	1.485	19.158
R139	4.2	4.2	100	250	6.000	2.150	1.567	20.213
R166	4.6	4.2	100	250	6.000	2.150	1.784	23.013
R188	6.0	4.2	150	250	6.000	2.150	2.005	25.861
R196	5.0	4.2	100	250	6.000	2.150	2.032	26.212
R221	6.5	4.2	150	250	6.000	2.150	2.357	30.409
R238	5.5	4.2	100	250	6.000	2.150	2.373	30.612
R257	7.0	5.0	150	250	6.000	2.150	2.750	35.478
R283	6.0	4.2	100	250	6.000	2.150	2.735	35.278
R331	6.5	4.6	100	250	6.000	2.150	3.212	41.438
R335	8.0	5.0	150	250	6.000	2.150	3.406	43.932
R377	8.5	5.0	150	250	6.000	2.150	3.758	48.477
R385	7.0	5.0	100	250	6.000	2.150	3.743	48.289
R424	9.0	6.0	150	250	6.000	2.150	4.413	56.929
R442	7.5	5.5	100	250	6.000	2.150	4.342	56.008
R503	8.0	6.0	100	250	6.000	2.150	4.979	64.231
R524	10.0	6.0	150	250	6.000	2.150	5.245	67.655
R536	9.0	6.0	100	250	6.000	2.150	6.054	78.097
R709	9.5	7.0	100	250	6.000	2.150	6.969	89.866
R785	10.0	7.5	100	250	6.000	2.150	7.779	100.342

Dimensions and weights

Mesh types	Wire diameters		Wire distances		Sheet dimensions		Weights	
	Longitudinal D mm	Transverse d mm	"a" longitudinal Wires mm	"t" Transverse Wires mm	Length "L" mm	Width "B" mm	kg/m²	kg/sheet
Q84	4.0	4.0	150	150	6.000	2.150	1.364	17.598
Q92	4.2	4.2	150	150	6.000	2.150	1.502	19.376
Q98	5.0	5.0	200	200	6.000	2.150	1.573	20.297
Q111	4.6	4.6	150	150	6.000	2.150	1.791	19.446
Q126	4.0	4.0	100	100	6.000	2.150	2.023	26.098
Q131	5.0	5.0	150	150	6.000	2.150	2.122	27.375
Q139	4.2	4.2	100	100	6.000	2.150	2.227	28.730
Q141	6.0	6.0	200	200	6.000	2.150	2.268	29.260
Q166	4.6	4.6	100	100	6.000	2.150	2.657	34.279
Q188	6.0	6.0	150	150	6.000	2.150	3.059	39.463
Q196	5.0	5.0	100	100	6.000	2.150	3.147	40.596
Q221	6.5	6.5	150	150	6.000	2.150	3.583	46.218
Q238	5.5	5.5	100	100	6.000	2.150	3.821	49.295
Q251	8.0	8.0	200	200	6.000	2.150	4.036	52.063
Q257	7.0	7.0	150	150	6.000	2.150	4.162	53.684
Q283	6.0	6.0	100	100	6.000	2.150	4.537	58.521
Q331	6.5	6.5	100	100	6.000	2.150	5.313	68.538
Q335	8.0	8.0	150	150	6.000	2.150	5.443	70.216
Q377	8.5	8.5	150	150	6.000	2.150	6.132	79.104
Q385	7.0	7.0	100	100	6.000	2.150	6.171	79.610
Q393	10.0	10.0	200	200	6.000	2.150	6.304	81.323
Q424	9.0	9.0	150	150	6.000	2.150	6.876	88.702
Q442	7.5	7.5	100	100	6.000	2.150	7.090	91.473
Q503	8.0	8.0	100	100	6.000	2.150	8.072	104.126
Q524	10.0	10.0	150	150	6.000	2.150	8.502	109.678
Q567	8.5	8.5	100	100	6.000	2.150	9.093	117.306
Q636	9.0	9.0	100	100	6.000	2.150	10.197	131.542
Q709	9.5	9.5	100	100	6.000	2.150	11.362	146.567
Q785	10.0	10.0	100	100	6.000	2.150	12.608	162.647



Prefabricated stirrup cages

SIDEFOR family of products are prefabricated 3D stirrup reinforcement cages used as shear reinforcement in columns, beams and shear walls. They are produced with a fully automated process using SD reinforcing steel, grade B500B according to DIN 488 satisfying geometry requirements of building standards and earthquake resistance codes, leading to high precision in design execution, stability, high productivity and overall quality.

SIDEFOR

SIDEFOR PLUS

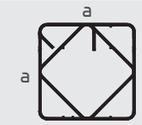
Transverse reinforcement (stirrups)

Method	Dependability		Cost	
	Forming	Fitting	Purchase	Forming and fitting
SIDEFOR	Very high	Very high	Low	Very low
Stirrup mesh	Medium	High	Low	Low
Spiral reinforcement	Very high	Low	Very high	High
Manualy-made stirrups	Medium	Very low	Very low	Very high

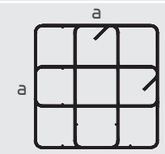
SD Integrated concrete reinforcing steel

Cross section type (in stock)

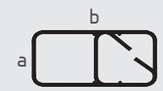
Square — Use for: columns



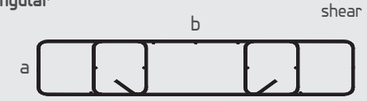
Square — Use for: columns



Rectangular — Use for: columns and shear walls

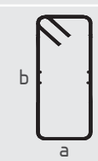


Rectangular — Use for: columns and shear walls

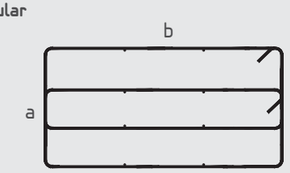


Rectangular — Use for: columns

Rectangular — Use for: beams and columns



Rectangular — Use for: foundation beams

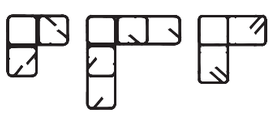


Other types can be produced upon request.

Technical characteristics

Dimension (cm)			Weight (kg/piece)	
a		a	Ø8	Ø10
30	x	30	30.94	-
35	x	35	36.23	54.34
40	x	40	39.55	59.53
a		a	Ø8	Ø10
45	x	45	58.34	88.51
55	x	55	71.17	107.80
a		b	Ø8	Ø10
20	x	40	22.93	34.32
20	x	45	24.35	36.54
25	x	45	26.36	39.68
a		b	Ø8	Ø10
20	x	95	-	78.70
20	x	115	-	91.10
20	x	145	-	108.50
20	x	95	-	86.77
25	x	115	-	98.54
20	x	145	-	112.20
a		b	Ø8	Ø10
20	x	55	33.67	50.72
20	x	55	35.56	53.68
a		b	Ø8	Ø10
20	x	45	19.73	29.32
25	x	45	21.15	31.54
20	x	55	22.22	33.21
25	x	55	23.40	35.06
a		b	Ø8	Ø10
35	x	90	-	94.18
45	x	90	-	97.88

Corner sections:
All types of stirrup cages for columns, beams and shear walls can easily form corner sections for stirrup reinforcement

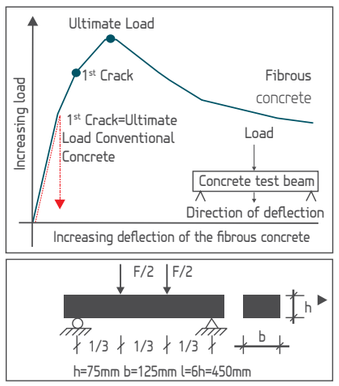


Steel fibers

INOMIX®

FIBER FUNCTION IN THE CONCRETE

Steel fibers are part of the SD Integrated concrete reinforcing system. They are produced in a wide range of dimensions and cover all the possible applications of the market (shotcrete for tunnels, slabs on grade, industrial floors).
The fibers act on grain size of the concrete, add workability and provide three dimensional reinforcement. The fiber's presence increases the total absorption of mechanical energy and provides the continuous and smooth deformation of the concrete.

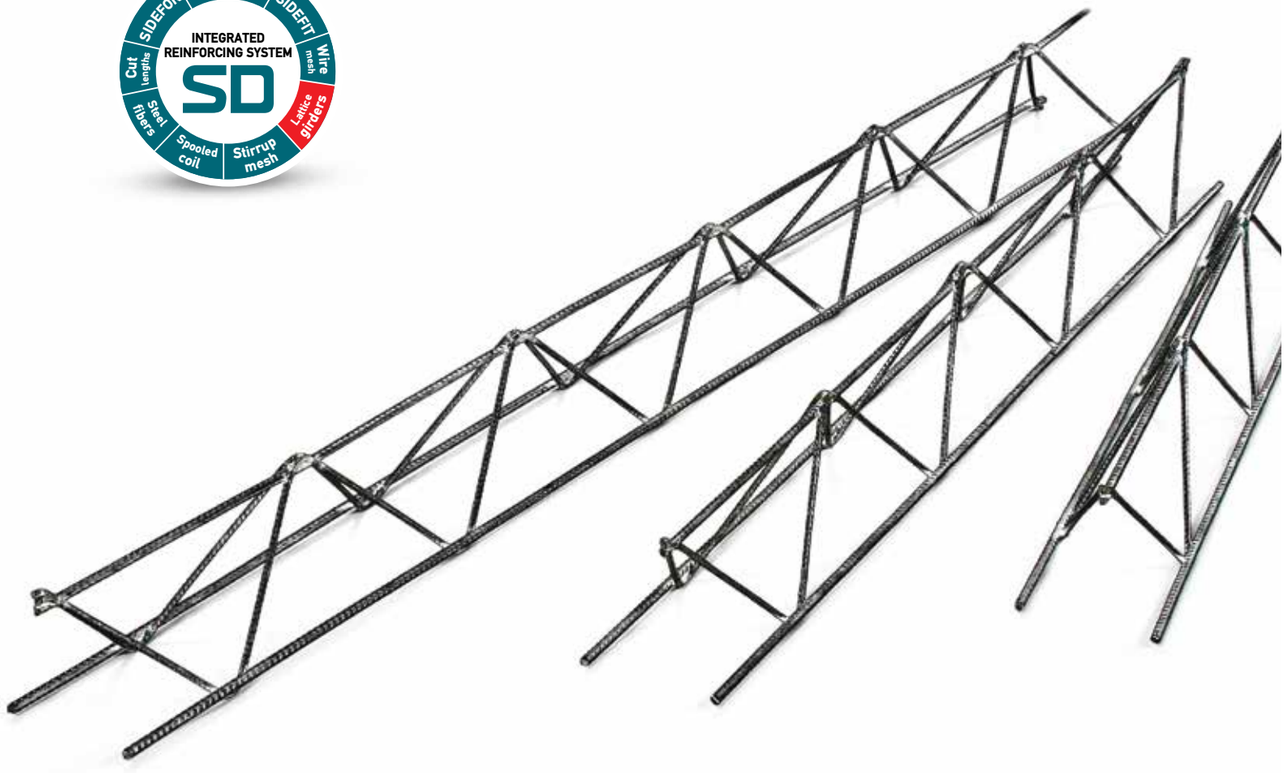


TYPE	MATERIAL	FORM DIAMETER	PACKING WEIGHT	STANDARDS AND QUALITY CERTIFICATIONS
Straight hooked-end fibers Undulated fibers	Cold drawn steel wire of high strength min 1100 MPa	Length 20-60mm Diameter 0.75-1.00mm	Paper bags of 20-30kg on pallets of approx. 1tn Bigs bags of approx. 1tn	ASTM A820 TYPE 1 EN 10016

SD Integrated concrete reinforcing steel

Characteristics of fiber reinforced concrete

- Increased bending strength
- Crack control
- Increased impact strength
- Improved resistance in high temperatures
- Improved resistance to splitting and shattering
- Improved toughness
- Improved compression strength after the first crack
- Low maintenance cost and prolonged construction usage



Lattice girders

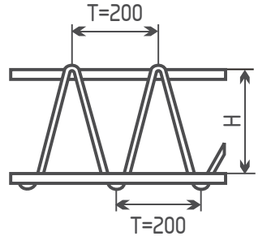
The Lattice girders are produced with 2 longitudinal wires in the bottom flange and 1 wire on the top, welded together in regular distances using a smaller diameter secondary wire.
The top and bottom reinforcing wires are produced with wire rod SAE1010 that after cold rolling obtains the mechanical characteristics of the required reinforcing steel B500A according to DIN488.
The Lattice girders are used mainly as reinforcement of prefabricated slabs and beams, where concreting is performed in two stages, offering the advantage of avoiding scaffolding and formwork needed in traditional construction.
Therefore, Lattice girders are best suited when slab reinforcement is generally light, while at the same time fast and no-formwork construction is needed.

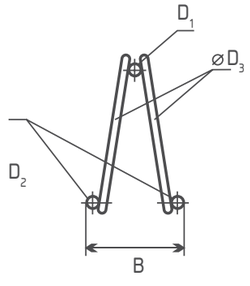
TYPE	STEEL GRADE	LENGTH DIMENSIONS
Lattice girders	Top and bottom reinforcing wires: reinforcing steel grade B500A according to DIN 488 Welded-longitudinal wires: steel St 37-2	Length: from 6 to 12m Welding spacing: 200mm

SD Integrated concrete reinforcing steel

Technical characteristics

Height H (mm)	Width B (mm)	Welding spacing T (mm)	Diameters longitudinal wires		Welded wires D_3 (mm)
			Bottom D_2 (mm)	Top D_1 (mm)	
70 - 220	70 - 100	200	Ø4 to Ø10	Ø5 to Ø10	Ø4.2 to Ø6.0





Wire rod

Wire rod

Wire rod is produced at the Thessaloniki plant, Greece. The produced grades are:

- SAE1006 according to ASTM A510M
- SAE1008 according to ASTM A510M
- SAE1010 according to ASTM A510M
- ELECTRODE QUALITY (USD 7) according to DIN 17145
- S235JR acc. EN10025 (RSt 37-2) according to DIN 17100

Wire rod is suitable for a vast range of cold-drawing and covers all the needs of the low-carbon wire products industry.

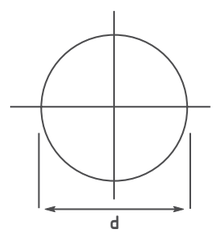
TYPE	STEEL GRADE	FORM DIAMETER	COIL WEIGHT	DIAMETERS WEIGHTS - TOLERANCES
Hot rolled wire rod	1) SAE 1006 acc. to ASTM A510M 2) SAE 1008 acc. to ASTM A510M 3) SAE 1010 acc. to ASTM A510M 4) ELECTRODES (USD 7) acc. to DIN 17145 5) S235JR acc. EN10025 (RSt 37-2) acc. to DIN 17100	Coils diameters from Ø5.5 to Ø16mm	From 1250 to 1450kg	According to DIN 59110

Chemical composition

Steel grade	C (%) max	Mn (%) max	S (%) max	P (%) max	Si (%) max	Typical uses
SAE 1006	0.08	0.30 - 0.40	0.025	0.020	0.08	Black and galvanized wires, small nails
SAE 1008	0.09	0.30 - 0.50	0.030	0.020	0.10	Black and galvanized wires, nails, galvanized fencing mesh
SAE 1010	0.10	0.40 - 0.60	0.040	0.025	0.15	Concrete reinforcing wire mesh, nails, galvanized fencing mesh
Electrodes	0.09	0.40 - 0.60	0.025	0.020	0.05	Coated welding electrodes (according to DIN 17145 / USD7)
S235JR	0.12	0.40 - 0.65	0.040	0.025	0.20	Concrete reinforcing wire mesh

Diameters, weights and tolerance

Diameter d (mm)	Permissible deviation	Nominal cross-section (cm^2)	Nominal weight (kg/m)	Permissible out-of-roundness (mm)
5.5	0.3	0.238	0.187	0.48
6.0		0.283	0.222	
6.5		0.332	0.260	
7.0	0.4	0.385	0.302	0.64
8.0		0.503	0.395	
9.0		0.636	0.499	
10.0		0.785	0.617	
11.0		0.950	0.746	
12.0		1.130	0.888	
14.0		1.540	1.210	
16.0	0.5	2.010	1.580	0.80



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