



BANGKOK STEEL WIRE CO.,LTD.

24/10 MOO 6 BANGSAOTHONG, BANGSAOTHONG MINOR DISTRICT,
SAMUTPRAKARN 10540, THAILAND.

TEL. (66)-2312-8216-19, (66)-2740-0835-36 FAX. (66)-2312-8220

MILL TEST CERTIFICATE

Customer :

Description Of Goods : 7-WIRE STRAND FOR PRESTRESSED CONCRETE

SWPR7BL 12.7 mm. (7 - Wire Strand JIS G 3536-1999)

Nominal Diameter : 12.7 mm.

Specification : JIS G 3536-1999

Certificate No : 013

Page No : 1/1

Date : May 26, 2007

Invoice No :

Letter Of Credit No :

Issuing Bank :



No.	Coil No.	Diameter (mm.)	Mass (g/m.)	Section Area (mm. ²)	Tensile Load (kN.)	0.2% Yield Load (kN.)	Elongation (%)	Young's Modulus (kN/mm. ²)	Length Approx (m.)	Weight Coil (Kg.)
1	183-106-166-11	12.90	782.6140	100.4059	191.49	180.00	5.34%	201.6814	4,517	3,535
2	183-106-166-12	12.90	782.6140	100.4059	191.49	180.00	5.34%	201.6814	4,384	3,431
3	183-335-165-11	12.92	785.6864	100.9406	191.50	178.00	5.31%	200.6130	4,242	3,333
4	183-335-165-12	12.92	785.6864	100.9406	191.50	178.00	5.31%	200.6130	4,274	3,358
5	183-256-153-11	12.90	781.5149	100.5350	191.00	179.00	5.28%	203.9092	4,407	3,444
6	183-256-153-12	12.90	781.5149	100.5350	191.00	179.00	5.28%	203.9092	4,408	3,445
Min.		12.90	781.5149	100.4059	191.00	178.00	5.28%	200.6130		6
Max.		12.92	785.6864	100.9406	191.50	180.00	5.34%	203.9092	Grand total	20,546
Avg.		12.91	783.2718	100.6272	191.33	179.00	5.31%	202.0679	-	-
Lower Spec Limit.		12.50	758.5200	96.7358	183.00	156.00	3.50%	195.0000	JIS G 3536-1999	
Upper Spec Limit.		13.10	804.9600	102.6584	-	-	-	215.0000	TIS. 420-2540(1997)	
Comment : Left Hand Lay					Approve		Check		Issue	

QA-FB-06, แก้ไขครั้งที่ : 6, วันที่อนุมัติใช้ : 02 พฤษภาคม 2549

SALES OFFICE : 31ST FLOOR ITALTHAI TOWER, 2034/132-161 NEW PETCHBURI RD., BANGKOK 10320, THAILAND.

TEL. (66)-2716-1600 EXT. 5801-5811, (66)-2716-1575 FAX. (66)-2716-1579



BANGKOK STEEL WIRE CO.,LTD.

24/10 MOO 6 BANGSAOTHONG, BANGSAOTHONG MINOR DISTRICT,
SAMUTPRAKARN 10540, THAILAND.

TEL. (66)-2312-8216-19, (66)-2740-0835-36 FAX. (66)-2312-8220

MILL TEST CERTIFICATE

Customer :

Description Of Goods : 7-WIRE STRAND FOR PRESTRESSED CONCRETE
SWPR7AL 9.3 mm. (7 - Wire Strand JIS G 3536-1999)

Nominal Diameter : 9.3 mm.

Specification : JIS G 3536-1999

Certificate No : 010

Page No : 1/1

Date : May 26, 2007

Invoice No :

Letter Of Credit No :

Issuing Bank :



No.	Coil No.	Diameter (mm.)	Mass (g/m.)	Section Area (mm. ²)	Tensile Load (kN.)	0.2% Yield Load (kN.)	Elongation (%)	Young' s Modulus (kN/mm. ²)	Length Approx (m.)	Weight Coil (Kg.)
1	209-776-681-11	9.38	409.2125	52.8201	108.10	102.20	5.81%	203.5209	7,485	3,063
2	209-776-681-12	9.38	409.2125	52.8201	108.10	102.20	5.81%	203.5209	7,475	3,059
3	209-864-680-11	9.36	410.0881	53.1110	108.15	101.00	5.80%	202.4061	7,489	3,071
4	209-864-680-12	9.36	410.0881	53.1110	108.15	101.00	5.80%	202.4061	7,491	3,072
5	209-776-679-11	9.37	409.5930	52.8686	108.42	100.00	5.75%	203.3344	7,507	3,075
6	209-776-679-12	9.37	409.5930	52.8686	108.42	100.00	5.75%	203.3344	7,566	3,099
Min.		9.36	409.2125	52.8201	108.10	100.00	5.75%	202.4061		6
Max.		9.38	410.0881	53.1110	108.42	102.20	5.81%	203.5209	Grand total	18,439
Avg.		9.37	409.6312	52.9332	108.22	101.07	5.79%	203.0871	-	-
Lower Spec Limit.		9.10	396.9000	50.5778	88.80	75.50	3.50%	195.0000	JIS G 3536-1999	
Upper Spec Limit.		9.70	421.2000	53.6744	-	-	-	215.0000	TIS. 420-2540(1997)	
Comment : Left Hand Lay					Approve		Check		Issue	

QA-FB-06, แก้ไขครั้งที่ : 6, วันที่อนุมัติใช้ : 02 พฤษภาคม 2549

SALES OFFICE : 31ST FLOOR ITALTHAI TOWER, 2034/132-161 NEW PETCHBURI RD., BANGKOK 10320, THAILAND.

TEL. (66) -2716-1600 EXT. 5801-5811, (66) -2716-1575 FAX. (66) -2716-1579



BANGKOK STEEL WIRE CO.,LTD.

24/10 MOO 6 BANGSAOTHONG, BANGSAOTHONG MINOR DISTRICT,
SAMUTPRAKARN 10540, THAILAND.

TEL. (66)-2312-8216-19, (66)-2740-0835-36 FAX. (66)-2312-8220

MILL TEST CERTIFICATE

Customer :

Description Of Goods : 7-WIRE STRAND FOR PRESTRESSED CONCRETE
SWPR7AL 15.2 mm. (7 - Wire Strand JIS G 3536-1999)

Nominal Diameter : 15.2 mm.

Specification : JIS G 3536-1999

Certificate No : 011

Page No : 1/1

Date : May 26, 2007

Invoice No :

Letter Of Credit No :

Issuing Bank :



No.	Coil No.	Diameter (mm.)	Mass (g/m.)	Section Area (mm. ²)	Tensile Load (kN.)	0.2% Yield Load (kN.)	Elongation (%)	Young' s Modulus (kN/mm. ²)	Length Approx (m.)	Weight Coil (Kg.)
1	215-769-558-11	15.38	1,100.2986	141.5949	265.48	244.00	5.38%	201.9846	3,083	3,392
2	215-769-558-12	15.38	1,100.2986	141.5949	265.48	244.00	5.38%	201.9846	2,959	3,256
3	199-075-517-11	15.30	1,102.7649	141.8358	265.55	244.00	5.02%	202.4617	3,055	3,369
4	199-075-517-12	15.30	1,102.7649	141.8358	265.55	244.00	5.02%	202.4617	2,944	3,247
5	199-199-516-11	15.32	1,101.5379	141.9946	265.14	242.00	5.05%	203.2332	2,959	3,259
6	199-199-516-12	15.32	1,101.5379	141.9946	265.14	242.00	5.05%	203.2332	2,958	3,258
Min.		15.30	1,100.2986	141.5949	265.14	242.00	5.02%	201.9846		6
Max.		15.38	1,102.7649	141.9946	265.55	244.00	5.38%	203.2332	Grand total	19,781
Avg.		15.33	1,101.5338	141.8084	265.39	243.33	5.15%	202.5598	-	-
Lower Spec Limit.		15.00	1,078.9800	135.9260	240.00	204.00	3.50%	195.0000	JIS G 3536-1999	
Upper Spec Limit.		15.60	1,145.0400	144.2480	-	-	-	215.0000	TIS. 420-2540(1997)	
Comment : Left Hand Lay					Approve		Check		Issue	

QA-FB-06, แก้ไขครั้งที่ : 6, วันที่อนุมัติใช้ : 02 พฤษภาคม 2549

SALES OFFICE : 31ST FLOOR ITALTHAI TOWER, 2034/132-161 NEW PETCHBURI RD., BANGKOK 10320, THAILAND.

TEL. (66)-2716-1600 EXT. 5801-5811, (66)-2716-1575 FAX. (66)-2716-1579