



**SIDERURGICA LATINA**  
MARTIN



## SIDERURGICA LATINA MARTIN

Established in 1965, Siderurgica Latina Martin is a business unit belonging to the Italian privately-owned Group ORI MARTIN, a European leading manufacturer of high-end steel products.

At the mill located in Ceprano ITALY, Siderurgica Latina Martin produces:

- PC Strand (3-7 wires)
- PC Wire supplied in Straight-Cut-To-Lenght-Bar and in Coil
- Phosphated Cold Drawn Spring Wire



## PRODUCTIVE CAPACITY OF STEEL

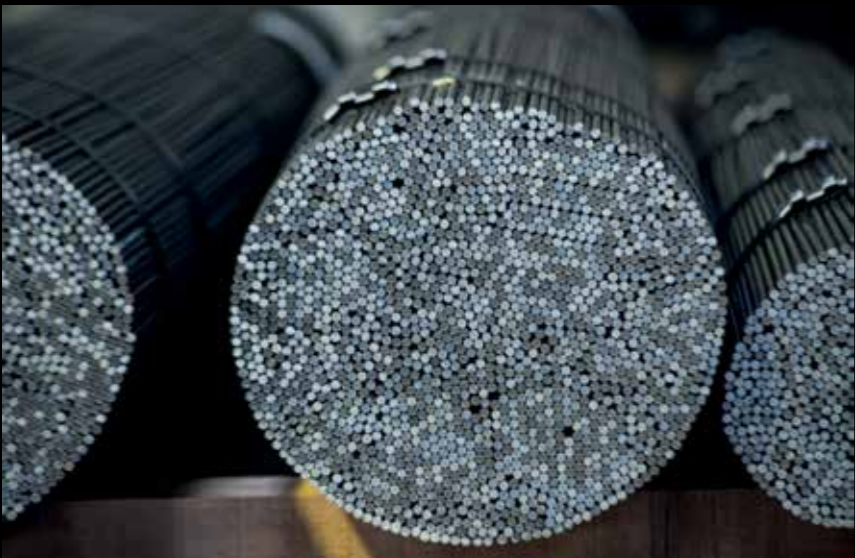
Siderurgica Latina Martin turns High Carbon Wire Rod into finished products through an integrated manufacturing process which starts from the in-house Wire Rod Pickling to Cold Drawing, Wire Stranding, Thermo-Mechanical Process down to Coil Rewinding and Packaging.

The very tight Group partnership allows Siderurgica Latina Martin to rely on ORI MARTIN's expertise and know-how, guaranteeing the Customers with the highest and consistent quality.





## PRODUCT RANGE



## CONSTRUCTION STEEL

PC Strand and PC Wire are chiefly used in the construction industry and infrastructure, both in pre-stressing and post-tensioning applications which include Precast Concrete Elements, Concrete Poles, Railroad Sleepers, Geotechnical Strand Anchors as well as Post Tensioned anchorage systems extensively utilized in super-structures such as post-tensioned slabs and wide-span viaducts and bridges.

**PC STRAND - 7 WIRE**  
 REFERENCE UNI 7676  
 ACCORDING TO DM 17.01.2018



STEEL DESIGNATION	VALORI NOMINALI					VALORI GARANTITI			
	Diameter d mm	Area della sezione trasversale <sup>a)</sup> S <sub>n</sub> mm <sup>2</sup>	Massa per metro <sup>a)</sup> M g/m	Tensione all'1% di deformazione totale f <sub>p1 nom</sub> MPa	Tensione al carico massimo f <sub>pt nom</sub> MPa	Tolleranza della massa per metro rispetto alla massa nominale per metro %	Valore caratteristico del carico allo 0,1% di scostamento dalla proporzionalità <sup>b)</sup> F <sub>p0,1k</sub> kN	Valore caratteristico del carico all'1% di deformazione totale f <sub>p1 k</sub> kN	Valore caratteristico del carico massimo F <sub>mk</sub> kN
Y1700T7-C	18,0	223	1742	1530	1700	±2	334	342	379
Y1820T7-C	15,2	165	1289	1640	1820	±2	265	271	301
Y1860T7-C	15,2	165	1289				270	276	307
	6,9	29	226,5				47,5	48,5	54
	7,0	30	234,3				49,1	50,1	55,8
	8,0	38	296,8				62,2	63,5	70,7
	9,0	50	390,5				81,8	83,5	93
	9,3	52	406,1				85,1	86,9	96,7
Y1860T7	9,6	55	429,6	1670	1860	±2	90,6	91,9	103
Y1860T7Z	11,0	70	546,7				115	117	131
Y1860T7ZA	11,3	75	585,8				123	126	140
	12,5	93	726,3				152	156	173
	12,9	100	781				164	167	186
	15,2	139	1086				228	233	259
	15,3	140	1093				230	234	261
	15,7	150	1172				246	251	279
Y2060T7	6,4	25	195,3	1860	2060	±2	45,8	46,5	51,5

**PC STRAND - 2&3 WIRE**  
 REFERENCE UNI 7676  
 ACCORDING TO DM 17.01.2018



STEEL DESIGNATION	VALORI NOMINALI					VALORI GARANTITI			
	Diameter d mm	Area della sezione trasversale <sup>a)</sup> S <sub>n</sub> mm <sup>2</sup>	Massa per metro <sup>a)</sup> M g/m	Tensione all'1% di deformazione totale f <sub>p1 nom</sub> MPa	Tensione al carico massimo f <sub>pt nom</sub> MPa	Tolleranza della massa per metro rispetto alla massa nominale per metro %	Valore caratteristico del carico allo 0,1% di scostamento dalla proporzionalità <sup>b)</sup> F <sub>p0,1k</sub> kN	Valore caratteristico del carico all'1% di deformazione totale f <sub>p1 k</sub> kN	Valore caratteristico del carico massimo F <sub>mk</sub> kN
Y1860T2									
Y1860T2Z	<b>4,5</b>	<b>7,95</b>	<b>62,1</b>	1670	1860	±2	13	13,3	14,8
Y1860T2ZA									
	4,85	11,9	92,9	1670	1860	±2	19,5	19,9	22,2
Y1860T3	5,2	13,6	106,2	1670	1860	±2	22,3	22,8	25,3
Y1860T3Z	6,5	21,2	165,6	1670	1860	±2	34,8	35,5	39,5
Y1860T3ZA	8,6	37,4	292,1	1670	1860	±2	61,2	62,6	69,6

# PC WIRE

## REFERENCE UNI 7675

### ACCORDING TO DM 17.01.2018

STEEL DESIGNATION	VALORI NOMINALI					VALORI GARANTITI		
	Diameter d mm	Area della sezione trasversale <sup>a)</sup> S <sub>n</sub> mm <sup>2</sup>	Massa per metro <sup>a)</sup> M g/m	Tensione all'1% di deformazione totale f <sub>p1,nom</sub> MPa	Tensione al carico massimo f <sub>pt,nom</sub> MPa	Tolleranza della massa per metro rispetto alla massa nominale per metro %	Valore caratteristico del carico allo 0,1% di scostamento dalla proporzionalità <sup>b)</sup> F <sub>0,1k</sub> kN	Valore caratteristico del carico massimo F <sub>mk</sub> kN
Y1570F	7,0	38,5	300,7	1420	1570	±2	54,7	60,5
	8,0	50,3	392,8				71,5	79
	8,5	56,7	442,8				80,5	89
	8,8	60,8	474,8				86,4	95,5
	9,0	63,6	496,7				90,3	99,9
	9,4	69,4	542				98,6	109
	9,5	70,9	553,7				101	112
	9,7	73,9	577,2				105	116
	10,0	78,5	613,1				112	124
	10,5	86,6	676,3				123	136
Y1620F	12,2	117	913,8	1420	1620	±2	167	184
	4,5	15,9	124,2				22,6	25,8
Y1670F	7,11	39,7	310,1	1470	1670	±2	56,4	64,3
	5,0	19,6	153,1				28,9	32,8
	6,0	28,3	221				41,6	47,3
Y1770F	7,0	38,5	300,7	1570	1770	±2	56,6	64,3
	8,0	50,3	392,8				74	84
	4,0	12,6	98,4				19,8	22,3
	5,0	19,6	153,1				30,8	34,7
Y1860F	6,0	28,3	221	1650	1860	±2	44,5	50,1
	7,0	38,5	300,7				60,5	68,2
	4,0	12,6	98,4				20,8	23,5
	5,0	19,6	153,1				32,4	36,5



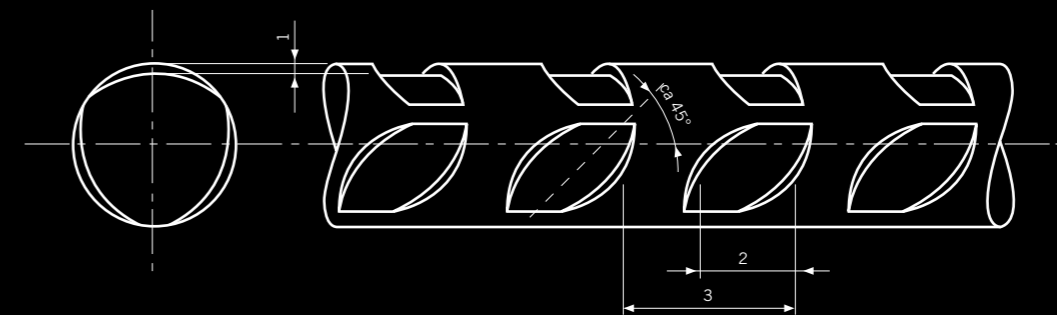
## INDENTED STRAND & PC WIRE

3-WIRE STRAND AND 7-WIRE STRAND  
 REFERENCE UNI 7676 - ACCORDING TO DM 17.01.2018

NOMINAL STRAND DIAMETER d	INDENTATION DEPTH (1) $a_{max}$	LENGTH (2) l	SPACING (3) c
$\leq 12$	$0,06 \pm 0,03$	$3,5 \pm 0,5$	$5,5 \pm 0,5$
$> 12$	$0,07 \pm 0,03$	$3,5 \pm 0,5$	$5,5 \pm 0,5$

PC WIRE  
 REFERENCE UNI 7675 - ACCORDING TO DM 17.01.2018

NOMINAL STRAND DIAMETER d	INDENTATION DEPTH (1) $a_{max}$	LENGTH (2) l	SPACING (3) c
$d \leq 5$	$0,03 \leq a_{max} \leq 0,16$	$3,5 \pm 0,5$	$5,5 \pm 0,5$
$5 < d \leq 8$	$0,05 \leq a_{max} \leq 0,20$	$5,0 \pm 0,5$	$8,0 \pm 0,5$
$8 < d \leq 11$	$0,05 \leq a_{max} \leq 0,25$	$5,0 \pm 0,5$	$8,0 \pm 0,5$



# PC STRAND

## ACCORDING TO prEN 10138-2009

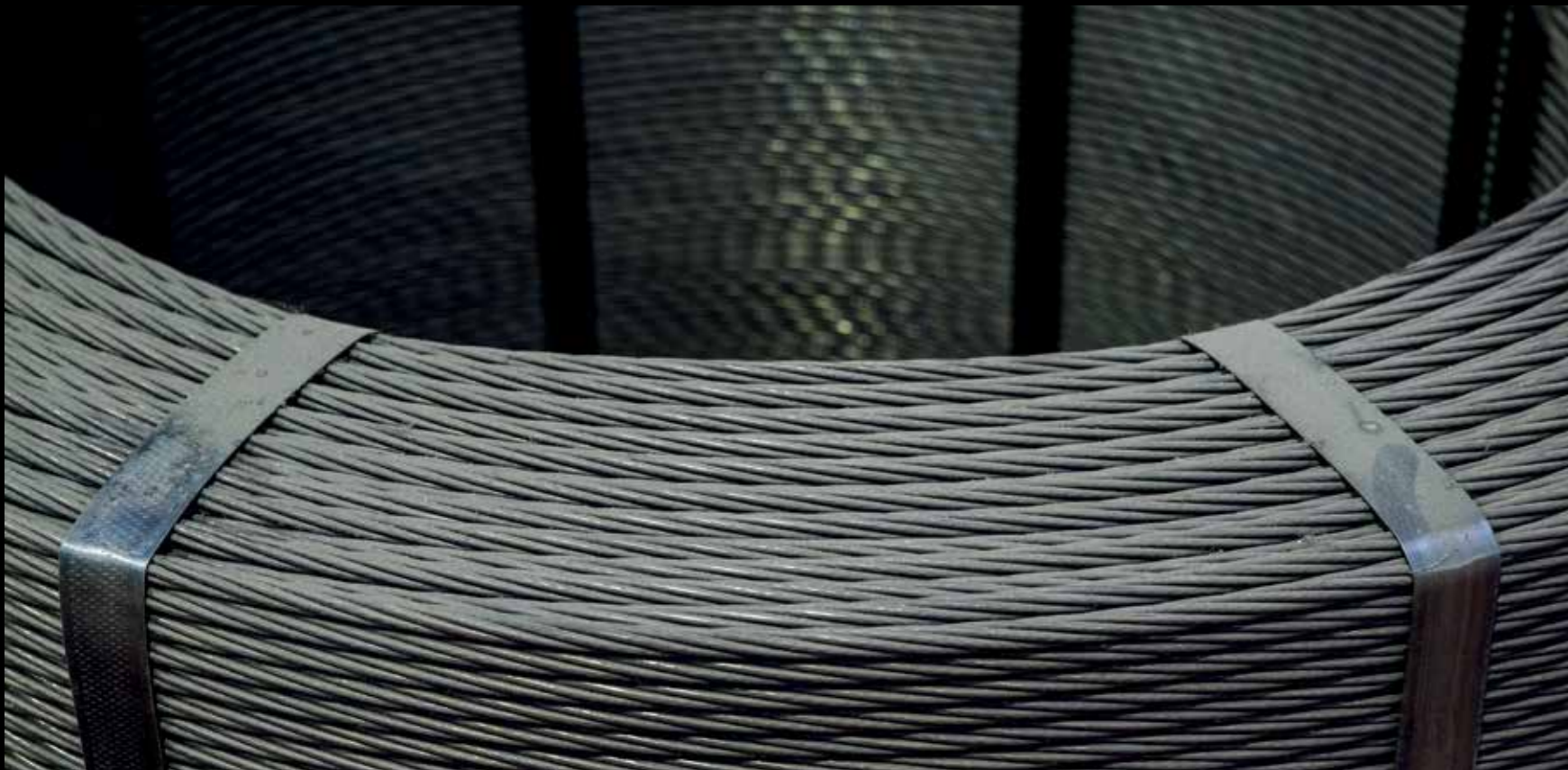
STEEL DESIGNATION		NOMINAL				SPECIFIED			
Steel name	Steel number	Diameter d mm	Tensile strength $R_m$ MPa	Cross - sectional area <sup>b</sup> S <sub>n</sub> mm <sup>2</sup>	Mass per metre <sup>b)</sup> M g/m	Permitted deviation on nominal mass per metre %	Characteristic value of maximum force $F_m$ kN	Maximum value of maximum force $f_{m,max}$ kN	Characteristic value of 0,1 % proof force <sup>c</sup> $f_{p0,1}$ kN
Y1670S7	1.1364	15,2	1670	139	1086	±2	232	267	204
Y1700S7G	1.370	18,0	1700	223	1742	±2	379	436	334
Y1770S7	1.1365	6,9	1770	29,0	226,5	±2	51,3	59,0	45,1
		9,0		50,0	390,5		88,5	102	77,9
		9,3		52,0	406,1		92,0	106	81,0
		9,6		55,0	429,6		97,4	112	85,7
		11,0		70,0	546,7		124	143	109
		12,5		93,0	726,3		165	190	145
		12,9		100	781,0		177	204	156
Y1820S7G	1.1371	15,2	1820	139	1086	±2	246	283	216
		15,3		140	1093		248	285	218
		15,7		150	1172		266	306	234
		18,0		200	1562		354	407	312
		6,9		29,0	226,5		53,9	62,0	47,4
		7,0		30,0	234,3		55,8	64,2	49,1
		8,0		38,0	296,8		70,7	81,3	62,2
Y1860S7	1.1366	9,0	1860	50,0	390,5	±2	93,0	107	81,8
		9,3		52,0	406,1		96,7	111	85,1
		9,6		55,0	429,6		102	117	89,8
		11,0		70,0	546,7		130	150	114
		11,3		75,0	585,8		140	161	123
		12,5		93,0	726,3		173	199	152
		12,9		100	781,0		186	214	164
		13,0		102	796,6		190	219	167
		15,2		139	1086		259	298	228
		15,3		140	1093		260	299	229
		15,7		150	1172		279	321	246

A The modulus of elasticity (e) may be taken to be 195 gpa (kN/mm<sup>2</sup>).  
 B The nominal mass per metre is calculated from the nominal cross-sectional area and a density of 7,81 kg/dm<sup>3</sup>. c the specified characteristic value of the 0,1% proof force is calculated:  
 — for the grades Y1670S7, Y1700S7G, Y1770S7, Y1820S7G, Y1860S7 and Y1860S7G for all diameters as 88% of the specified characteristic value of the maximum force;  
 — for the grades Y1960S7, Y2060S7 and Y2160S7 for all diameters as 89% of the specified characteristic value of the maximum force.  
 Available on-demand, PC Strands Treated and Coated on the surfaces (Galvanized Strand, Waxed and Greased Unbonded Strand)  
 Furthermore, the PC Strand manufactured by SLM is certified and approved for cryogenic environment applications.

STEEL DESIGNATION		NOMINAL				SPECIFIED				
Steel name	Steel number	Diameter d mm	Tensile strength $R_m$ MPa	Cross - sectional area <sup>b</sup> S <sub>n</sub> mm <sup>2</sup>	Mass per metre <sup>b)</sup> M g/m	Permitted deviation on nominal mass per metre %	Characteristic value of maximum force $F_m$ kN	Maximum value of maximum force $f_{m,max}$ kN	Characteristic value of 0,1 % proof force <sup>c</sup> $f_{p0,1}$ kN	
Y1860S7G	1.1372	12,7	1860	112	874,7	±2	208	239	183	
		15,2		165	1289		307	353	270	
		9,0		50,0	390,5		98,0	113	87,2	
		9,3		52,0	406,1		102	117	90,8	
		9,6		55,0	429,6		108	124	96,1	
Y1960S7	1.1367	11,0	1960	70,0	546,7	±2	137	158	122	
		11,3		75,0	585,8		147	169	131	
		12,5		93,0	726,3		182	209	162	
		12,9		100	781,0		196	225	174	
		13,0		102	796,6		200	230	178	
		15,2		139	1086		272	313	242	
		15,3		140	1093		274	315	244	
Y2060S7	1.1368	15,7	2060	150	1172	±2	294	338	262	
		6,4		25,0	195,3		51,5	59,2	45,8	
		6,85		28,2	220,2		58,1	66,8	51,7	
		7,0		30,0	234,3		61,8	71,1	55,0	
		8,6		45,0	351,5		92,7	107	82,5	
Y2160S7	1.1369	11,3	2160	75,0	585,8	±2	155	178	138	
		12,5		93,0	726,3		192	221	171	
		12,9		100	781,0		206	237	183	
		6,85		28,2	220,2		60,9	70,0	54,2	
1/ " *	12,7 *	112	875	1860	209	±2	188	180	3,5	196
6/10" *	15,2 *	165	1290	1860	307	±2	276	264	3,5	196

\* COMPACTED STRAND

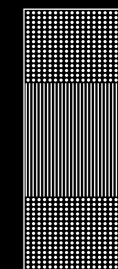
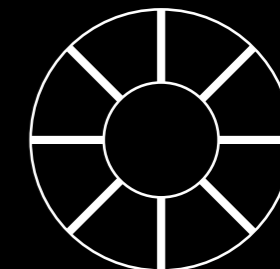




## PACKAGING

### PC STRAND - 7 WIRE

MASS Kg	INTERNAL DIAMETER mm	EXTERNAL DIAMETER mm	WIDTH mm
2500 - 3500	800 - 900	1200 - 1400	720 - 760
4000 - 4500*	800 - 900	1400 - 1500	720 - 760



\* On request

On request coils can be oiled or wrapped.

How to use, store and handle.

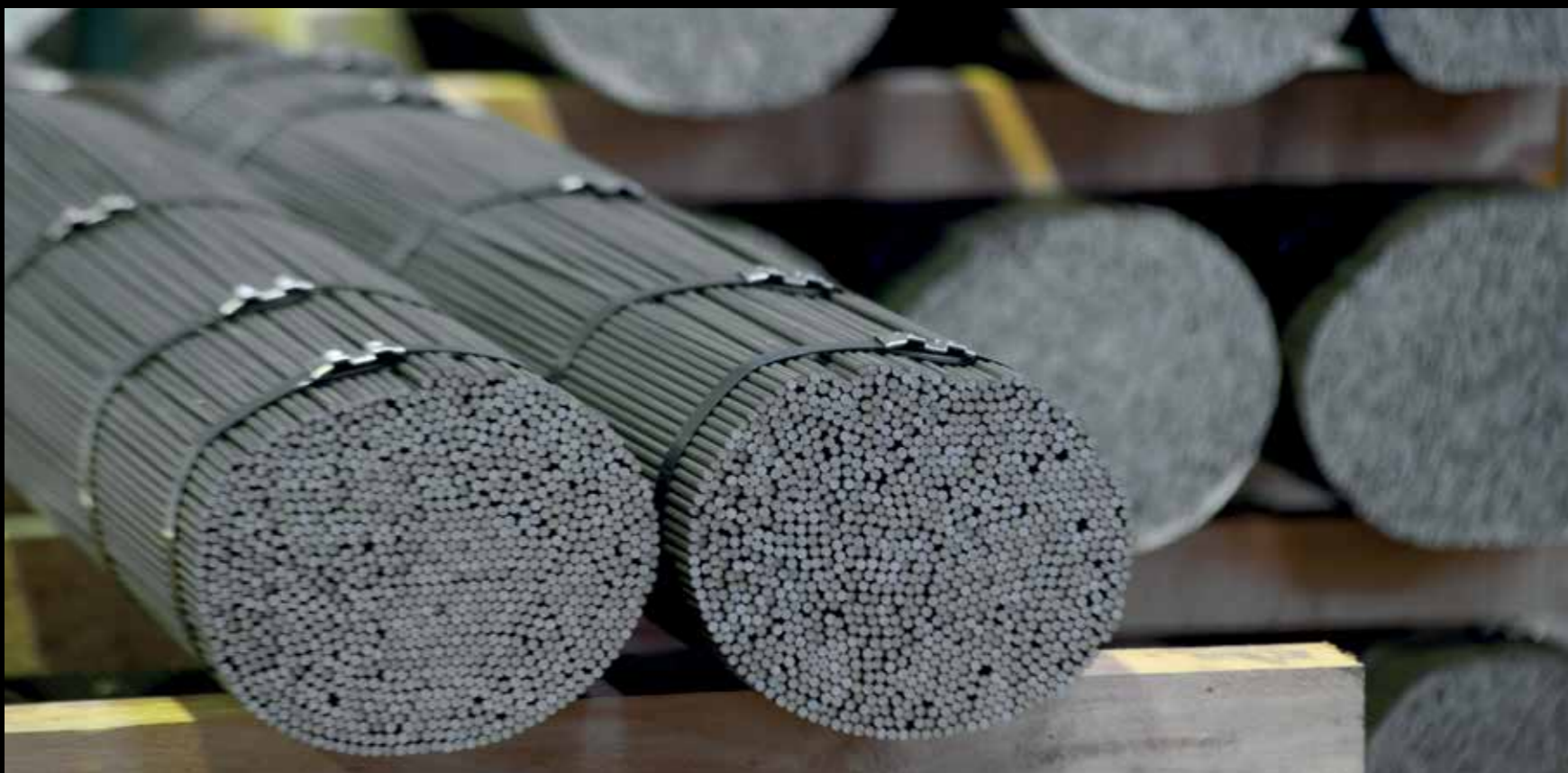
Avoid: exposure to concentrated heat (including cutting with oxyhydrogen flame and welding near the steel), excessive pressure, dragging and any form of abrasion.

It is preferable to store in a covered and adequately ventilated area.

For long-term storage, wrapping or protective packaging is suggested.

For external storage, avoid direct contact with floor and cover the steel appropriately, taking care to avoid condensate.

Possible formation of a thin layer of rust, which can be removed by light rubbing, does not influence the mechanical characteristics of the product.



### PC STRAND - 2&3 WIRE

MASS Kg	INTERNAL DIAMETER mm	EXTERNAL DIAMETER mm	STRIPE mm
150 - 200	280 - 300	max 700	190 - 210
1000 - 2000	800 - 900	max 1350	480 - 550
2000 - 3500	800	max 1400	750

PC wire and spring wire packaging.

Packaging on demand or according to customer's specifications.



QUALITY.  
A CONTINUAL RESEARCH.



The continuous growth of Siderurgica Latina Martin's presence in the main international markets has unavoidably resulted in the compliance to the more and more stringent product and process requirements as to get the required technical certifications and approvals.

Siderurgica Latina Martin's Technical Staff has taken up the challenge by gearing the Technical Laboratory with the most sophisticated technology available and the ultimate and most efficient process monitoring methods.

In the last few years the unmissable technical and environmental certifications and approvals needed to take on the most demanding and challenging worldwide markets have been successfully achieved.

The restless endeavour in achieving these goals has also played a part in the attainment of significant recognitions from the Italian Ministry of Education, Universities and Research.



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