

SPECIFICAȚIA TEHNICĂ

Obiectul: Reparația capitală g/b SP Comrat DN 200, km 0-20, PL = 5,5 MPa, L = 20 km
Numărul: **VMTG-PI-111/24**

Acest tabel va fi completat de către ofertant în coloanele 4, 5 și 6:

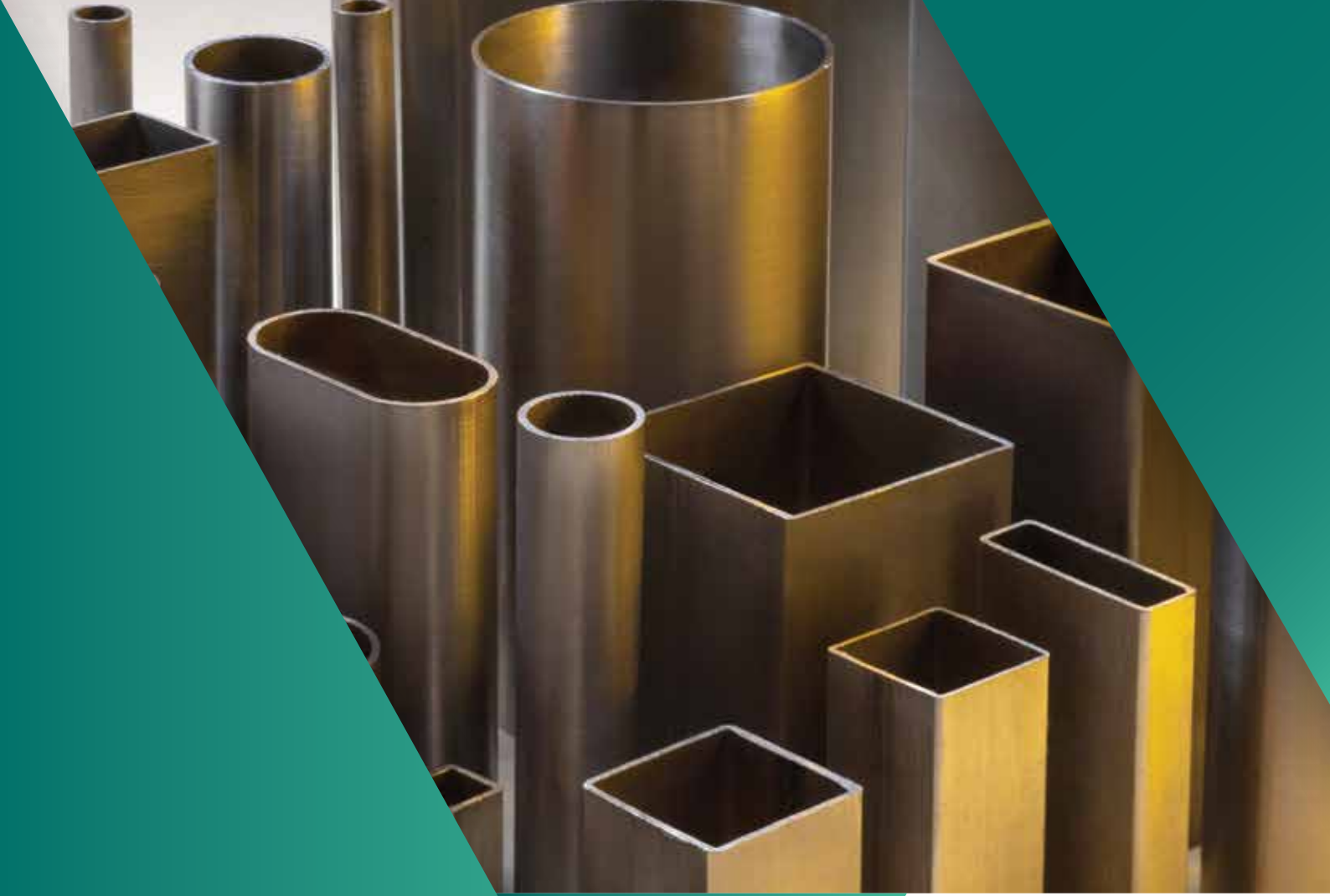
Nr.	Denumirea serviciilor	Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către ofertant	Standarde de referință	Termenii de executare
1	2	3	4	5	6
1	Reparația capitală g/b SP Comrat DN 200, km 0-20	Conform documentației de atribuire (Caietului de sarcini)	Efectuarea lucrărilor de construcție montaj a obiectului „Reparația capitală a gazoductului branșament de transport gaze naturale spre SP Comrat DN 200, PL = 5,5 MPa, pe sectorul 0 km – 20,168 km, L = 20,168 km” amplasat în r-l Taraclia: s. Tvardița; r-l Ciadîr Lunga: s. Bejghioz; r-l Comrat: s. Djoltai, s. Tomai conform volumelor de lucrări din Caietul de sarcini și conform legislației în vigoare ce ține de securitatea industrială a obiectelor industrial periculoase și calității în construcții. După finalizare lucrărilor de construcție-montaj și racordarea sectorului la conducta de transport, se vor efectua lucrările de demontare a sectorului defectat, cu transportarea țevelor, la locul de depozitare indicat de Proprietar.	Țeava din oțel sudată și fără sudură D219 pentru conducte magistrale de gaz, conform SM EN ISO 3183 preizolată cu trei straturi pe bază de polietilenă extrudată tip 3ΠΘ 2,5 mm	pîna la 15/10/2026

Semnat:
Numele, Prenumele:
În calitate de:
Ofertantul:
Adresa:
Data completării:

Electronic
Serghei COCÎRLĂ
Director
POLIMER GAZ CONDUCTE SRL
MD-2091, mun. Chișinău, șos. Chișinău -Tighina 28
07/05/2024



TOSÇELİK Profil ve Sac



Tosçelik
Profil ve Sac

www.toscelik.com.tr

ENG

TOSYALI FOR A SUSTAINABLE LIFE

Tosyali not only strengthens its position in the steel industry through product quality but also through sustainability-focused efforts. By declaring “Tosyali for a Sustainable Life” we commit to green steel and decarbonization initiatives, demonstrating our dedication to environmental responsibilities.

Our responsible production and consumption approach includes the use of eco-friendly technologies, and the generation of energy from renewable sources ensures that our production maintains a low carbon footprint. At the same time, our production with a high scrap ratio contributes to the circular economy.

With the commencement of the Solar Power Plant (SPP) project across our facilities, we take pride in having the world’s largest rooftop Solar Power Plant. This project not only reduces our energy costs but also contributes to making our steel production one of the cleanest and greenest facilities globally.

At our R&D Center, we focus on sustainability-driven projects, constantly reducing our carbon footprint through process improvements. Through innovation and technological advancements, we pave the way for environmentally friendly methods in steel production.

With a high rate of waste recycling and a commitment to the principles of the circular economy, we strive to leave a sustainable world for future generations. At Tosyali, we take maximum effort to ensure a livable world for tomorrow. By taking steps today for a sustainable future, we play a pioneering role in the steel industry and maintain our determination to minimize environmental impacts.

GREEN STEEL

TOSYALI FOR A SUSTAINABLE LIFE

**Steel is in life today,
at the forefront of change and
transformation tomorrow,
and at the center of life
in the future.**

Leader in Green Steel for Today and Tomorrow

- 🚩 Türkiye's steel producer with the lowest carbon footprint
- 🚩 Partnerships with world giants in circular economy
- 🚩 Sustainability-oriented R&D projects and investments
- 🚩 Leading the steel industry in the use of renewable energy sources



About Tosçelik Profil ve Sac Endüstrisi A.Ş.

Tosçelik Profil ve Sac Endüstrisi A.Ş., the flagship of Tosyalı Holding was established in İskenderun in 1997 to produce industrial pipes and hollow sections.

The company realized the first special hot rolled flat product production at Osmaniye Flat Structural Steel Production facilities in 2009. This investment is the first flat steel production facility made by the private sector of the Republic of Türkiye.

Tosçelik Profil ve Sac offers products to many sectors such as "Petroleum, Natural Gas and Mining", "Machinery Manufacturing", "Construction", "Automotive", "Water Distribution Installation" and "Furniture" with its product groups including Pipe, Hollow Sections, Coil Sheet and Billet Iron. The company supplies its wide range of products also to the global market, reaching across 6 continents and over 100 countries. Additionally, Tosçelik Profil ve Sac stands as the Europe's Largest ERW Pipe and Hollow Sections manufacturer.

Tosçelik Profil ve Sac aims to produce value-added products with a sustainability-oriented approach that makes a difference in the steel industry since its establishment. In line with this goal, the R&D Center, which was established for the first time in the Osmaniye region in 2017, is the research and development center of all production facilities of Tosyalı Holding.

Tosçelik Profil ve Sac produces "green steel" with a low carbon footprint in its facilities thanks to its investments focusing on sustainability, technology and innovation. Solar power plant installed in the production facilities of Tosçelik Profil ve Sac in Osmaniye is among the top solar power plants in the world. Converting the energy it receives from the sun to steel, Tosçelik Profil ve Sac is ERW pipe and hollow section manufacturer with the lowest carbon footprint in the world.

Vision

To be the architect of a better future through green steel production.

Mission

To represent the best reference to the world as one of the most important and strategic iron and steel companies in Europe and Africa.



Environmentalist



World Company



Sustainability



Innovator



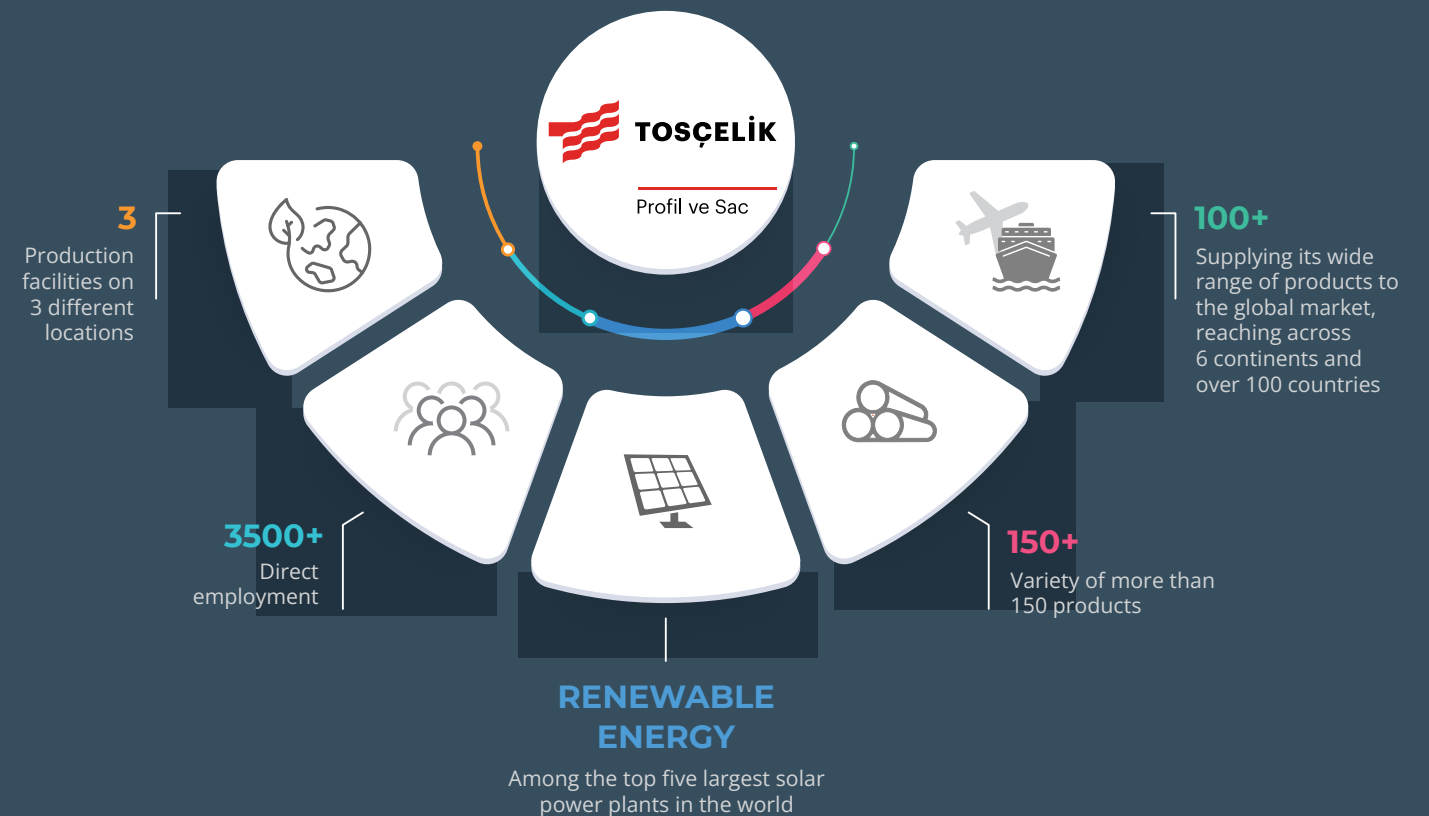
Experienced Staff



Efficiency Oriented



Industry Leading





ENERGY

Natural Gas and Oil Line Pipes
OCTG Pipes

PRODUCTION STANDARD AND STEEL GRADE

API 5L PSL1	A25 (L175), A (L210), B (L245), X42 (L290), X46 (L320), X52 (L360), X56 (L390), X60 (L415), X65 (L450), X70 (L485)
API 5L PSL2	BM (L245M), BN (L245N), X42M (L290M), X42N (L290N), X46M (L320M), X46N (L320N), X52M (L360M), X52N (L360N), X56M (L390M), X56N (L390N), X60M (L415M), X60N (L415N), X65M (L450M)
API 5CT PSL1	H40, J55, K55
ISO 3183 PSL1	A25 (L175), A (L210), B (L245), X42 (L290), X46 (L320), X52 (L360), X56 (L390), X60 (L415), X65 (L450), X70 (L485)
ISO 3183 PSL2	BM (L245M), BN (L245N), X42M (L290M), X42N (L290N), X46M (L320M), X46N (L320N), X52M (L360M), X52N (L360N), X56M (L390M), X56N (L390N), X60M (L415M), X60N (L415N), X65M (L450M)

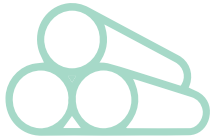
HEAT TREATMENT

Type	Dimension (mm)			
	Weld Seam & HAZ		Full Body	
	Outside Diameter	Wall Thickness	Outside Diameter	Wall Thickness
Stress Relieving	Ø42,2-339,7	2,00-13,00	Ø21,3-339,7	1,50-13,00
Normalizing	Ø42,2-339,7	2,00-13,00	Ø21,3-339,7	1,50-13,00



SURFACE CONDITION

- ✓ Uncoated
- ✓ Protective Oiled
- ✓ Primer Coated (Ø13,0-339,7 mm/1,00-13,00 mm thickness)
- ✓ Powder Epoxy Coated (Ø21,3-339,7 mm/2,60-13,00 mm thickness)
- ✓ PE-PP Coated (Ø21,3-339,7 mm/2,60-13,00 mm thickness)
- ✓ Internal Epoxy Coated (Ø76,1-339,7 mm/2,60-13,00 mm thickness)



PIPE END

- ✓ Plain End (Square Cut)
- ✓ Bevelled (chamfered)

QUALITY CONTROL TESTS

MECHANICAL TEST

- ✓ Tensile Test
- ✓ Charpy V Notch Impact Test
- ✓ Flattening Test
- ✓ Expanding Test
- ✓ Bending Test

CHEMICAL ANALYSIS

- ✓ Spectral Analysis

NON-DESTRUCTIVE TEST

- ✓ Eddy Current Test ISO 10893-2
- ✓ Ultrasonic Test (Weld Seam) ISO 10893-11
- ✓ Ultrasonic Test (Full Body, Lamination) ISO 10893-8
- ✓ Hydrostatic Test
- ✓ Control of Residual Magnetism

DIMENSIONAL AND VISUAL INSPECTION

METALLOGRAPHIC EXAMINATION

- ✓ Macro Examination
- ✓ Micro Examination
- ✓ Micro Hardness Test
- ✓ Grain Size Control

COATING TESTS

DRIFT TEST

TEST CERTIFICATES

According to EN 10204, 2.1, 2.2, 3.1, 3.2 certificates





NATURAL GAS AND
OIL LINE PIPES

ENERGY

Natural Gas and Oil Line Pipes

Production Range For Natural Gas and Oil Line Pipe

Outside Diameter		Wall Thickness (mm)																									
(mm)	(inch)	1,65	2,11	2,40	2,60	2,80	2,90	3,20	3,40	3,60	3,70	3,90	4,00	4,37	4,50	5,20	5,50	6,50	7,10	8,00	8,80	9,00	10,00	11,00	13,00		
		Mass Per Unit Length (kg/m)																									
Ø21,3	1/2	0,80	1,00	1,12	1,20	1,28	1,32	1,43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Ø26,7	3/4	1,02	1,28	1,44	1,55	1,65	1,70	1,85	1,95	2,05	2,10	2,19	2,24	-	-	-	-	-	-	-	-	-	-	-	-		
Ø33,4	1	1,29	1,63	1,83	1,97	2,11	2,18	2,38	2,52	2,65	2,71	2,84	2,90	3,13	3,21	3,62	-	-	-	-	-	-	-	-	-		
Ø42,2	1 1/4	1,65	2,09	2,36	2,54	2,72	2,81	3,08	3,25	3,43	3,51	3,68	3,77	4,08	4,18	4,74	4,98	5,72	-	-	-	-	-	-	-		
Ø48,3	1 1/2	1,90	2,40	2,72	2,93	3,14	3,25	3,56	3,76	3,97	4,07	4,27	4,37	4,73	4,86	5,53	5,80	6,70	-	-	-	-	-	-	-		
Ø60,3	2	2,39	3,03	3,43	3,70	3,97	4,10	4,51	4,77	5,03	5,16	5,42	5,55	6,03	6,19	7,07	7,43	8,62	9,31	-	-	-	-	-	-		
Ø73,0	2 1/2	-	-	4,18	4,51	4,85	5,01	5,51	5,84	6,16	6,32	6,65	6,81	7,40	7,60	8,69	9,16	10,66	11,54	12,82	-	-	-	-	-		
Ø88,9	3	-	-	-	5,53	5,95	6,15	6,76	7,17	7,57	7,77	8,17	8,37	9,11	9,37	10,73	11,31	13,21	14,32	15,96	-	-	-	-	-		
Ø101,6	3 1/2	-	-	-	-	6,82	7,06	7,76	8,23	8,70	8,93	9,40	9,63	10,48	10,78	12,36	13,03	15,24	16,55	18,47	20,14	20,55	-	-	-		
Ø114,3	4	-	-	-	-	7,70	7,97	8,77	9,30	9,83	10,09	10,62	10,88	11,85	12,18	13,99	14,76	17,28	18,77	20,97	22,89	23,37	25,72	-	-		
Ø141,3	5	-	-	-	-	9,56	9,90	10,90	11,56	12,22	12,55	13,21	13,54	14,76	15,18	17,45	18,42	21,61	23,50	26,30	28,75	29,36	32,38	-	-		
Ø168,3	6	-	-	-	-	11,43	11,83	13,03	13,83	14,62	15,02	15,81	16,21	17,67	18,18	20,91	22,08	25,93	28,22	31,62	34,61	35,36	39,04	-	-		
Ø219,1	8	-	-	-	-	-	-	-	18,09	19,13	19,65	20,70	21,22	23,14	23,81	27,43	28,97	34,08	37,12	41,65	45,64	46,63	51,56	56,45	66,07		
Ø273,0	10	-	-	-	-	-	-	-	-	-	-	-	26,53	28,95	29,80	34,34	36,28	42,72	46,56	52,28	57,33	58,59	64,86	71,07	83,35		
Ø323,9	12	-	-	-	-	-	-	-	-	-	-	-	-	-	35,44	40,87	43,18	50,88	55,47	62,32	68,38	69,89	77,41	84,88	99,67		

Length Range

- 5,0 - 8,5 m
- 5,0 - 14,0 m



Production Range For API 5L/ISO 3183

Outside Diameter			Wall Thickness		Mass Per Unit Length	Test Pressure (bar)							
NPS	(inch)	(mm)	(mm)	(inch)	(kg/m)	A	B	X42	X46	X52	X56	X60	X65
1/2	0,840	Ø21,3	1,65	0,065	0,80	170	170	205	205	205	205	205	205
			2,11	0,083	1,00	170	170	205	205	205	205	205	205
			2,41	0,095	1,12	170	170	205	205	205	205	205	205
			2,77	0,109	1,27	170	170	205	205	205	205	205	205
3/4	1,050	Ø26,7	1,65	0,065	1,02	156	170	205	205	205	205	205	205
			2,11	0,083	1,28	170	170	205	205	205	205	205	205
			2,41	0,095	1,44	170	170	205	205	205	205	205	205
			2,87	0,113	1,69	170	170	205	205	205	205	205	205
			3,91	0,154	2,20	170	170	205	205	205	205	205	205
1	1,315	Ø33,4	1,65	0,065	1,29	124	145	172	190	205	205	205	205
			2,77	0,109	2,09	170	170	205	205	205	205	205	205
			2,90	0,114	2,18	170	170	205	205	205	205	205	205
			3,38	0,133	2,50	170	170	205	205	205	205	205	205
			4,55	0,179	3,24	170	170	205	205	205	205	205	205
1 1/4	1,660	Ø42,2	1,65	0,065	1,65	99	115	136	150	169	183	195	205
			2,77	0,109	2,69	165	170	205	205	205	205	205	205
			2,97	0,117	2,87	170	170	205	205	205	205	205	205
			3,56	0,140	3,39	170	170	205	205	205	205	205	205
			4,85	0,191	4,47	170	170	205	205	205	205	205	205
			6,35	0,250	5,61	170	170	205	205	205	205	205	205
1 1/2	1,900	Ø48,3	1,65	0,065	1,90	86	100	119	131	148	160	170	184
			2,77	0,109	3,11	145	169	200	205	205	205	205	205
			3,18	0,125	3,54	166	170	205	205	205	205	205	205
			3,68	0,145	4,05	170	170	205	205	205	205	205	205
			5,08	0,200	5,41	170	170	205	205	205	205	205	205
			7,14	0,281	7,25	170	170	205	205	205	205	205	205
2	2,375	Ø60,3	1,65	0,065	2,39	69	80	95	105	118	128	136	148
			2,11	0,083	3,03	88	103	122	134	151	164	174	189
			2,77	0,109	3,93	116	135	160	176	198	205	205	205
			3,18	0,125	4,48	133	155	184	203	205	205	205	205
			3,58	0,141	5,01	150	170	205	205	205	205	205	205
			3,91	0,154	5,44	163	170	205	205	205	205	205	205
			4,37	0,172	6,03	170	170	205	205	205	205	205	205
			4,78	0,188	6,54	170	170	205	205	205	205	205	205
			5,54	0,218	7,48	170	170	205	205	205	205	205	205
			6,35	0,250	8,45	170	170	205	205	205	205	205	205

Outside Diameter			Wall Thickness		Mass Per Unit Length	Test Pressure (bar)							
NPS	(inch)	(mm)	(mm)	(inch)	(kg/m)	A	B	X42	X46	X52	X56	X60	X65
2	2,375	Ø60,3	7,14	0,281	9,36	170	170	205	205	205	205	205	205
2 1/2	2,875	Ø73,0	2,77	0,109	4,80	96	112	132	146	164	178	189	205
			3,05	0,120	5,26	105	123	145	160	180	196	205	205
			3,18	0,125	5,48	110	128	152	167	188	204	205	205
			3,58	0,141	6,13	124	144	171	188	205	205	205	205
			3,96	0,156	6,74	137	159	189	205	205	205	205	205
			4,37	0,172	7,40	151	170	205	205	205	205	205	205
			4,78	0,188	8,04	165	170	205	205	205	205	205	205
			5,16	0,203	8,63	170	170	205	205	205	205	205	205
			5,49	0,216	9,14	170	170	205	205	205	205	205	205
			6,35	0,250	10,44	170	170	205	205	205	205	205	205
3	3,500	Ø88,9	7,01	0,276	11,41	170	170	205	205	205	205	205	205
			2,77	0,109	5,88	79	92	108	120	135	146	155	168
			3,05	0,120	6,46	86	101	119	132	148	161	171	185
			3,18	0,125	6,72	90	105	124	137	155	167	178	193
			3,58	0,141	7,53	101	118	140	155	174	188	201	205
			3,96	0,156	8,29	112	131	155	171	192	205	205	205
			4,37	0,172	9,11	124	145	171	189	205	205	205	205
			4,78	0,188	9,92	135	158	187	205	205	205	205	205
			5,49	0,216	11,29	156	170	205	205	205	205	205	205
			6,35	0,250	12,93	170	170	205	205	205	205	205	205
3 1/2	4,000	Ø101,6	7,14	0,281	14,40	170	170	205	205	205	205	205	205
			7,62	0,300	15,27	170	170	205	205	205	205	205	205
			2,77	0,109	6,75	69	80	95	105	118	128	136	147
			3,05	0,120	7,41	76	88	104	115	130	140	149	162
			3,18	0,125	7,72	79	92	109	120	135	146	156	169
			3,58	0,141	8,65	89	104	123	135	152	165	175	190
			3,96	0,156	9,53	98	115	136	150	168	182	194	205
			4,37	0,172	10,48	108	126	150	165	186	201	205	205
			4,78	0,188	11,41	119	138	164	181	203	205	205	205
			5,74	0,226	13,57	142	166	197	205	205	205	205	205
4	4,500	Ø114,3	6,35	0,250	14,92	158	184	205	205	205	205	205	205
			7,14	0,281	16,63	177	190	205	205	205	205	205	205
			8,08	0,318	18,63	190	190	205	205	205	205	205	205
			2,77	0,109	7,62	61	71	84	93	105	113	121	131
			3,05	0,120	8,37	67	78	93	102	115	125	133	144
			3,18	0,125	8,71	70	82	97	107	120	130	139	150
			3,58	0,141	9,77	79	92	109	120	135	147	156	169

Production Range For API 5L/ISO 3183

Outside Diameter			Wall Thickness		Mass Per Unit Length	Test Pressure (bar)							
NPS	(inch)	(mm)	(mm)	(inch)	(kg/m)	A	B	X42	X46	X52	X56	X60	X65
4	4,500	Ø114,3	3,96	0,156	10,78	87	102	121	133	150	162	173	187
			4,37	0,172	11,85	96	112	133	147	165	179	190	205
			4,78	0,188	12,91	105	123	146	161	181	196	205	205
			5,16	0,203	13,89	114	133	157	173	195	205	205	205
			5,56	0,219	14,91	123	143	169	187	205	205	205	205
			6,02	0,237	16,07	133	155	183	202	205	205	205	205
			6,35	0,250	16,90	140	163	193	205	205	205	205	205
			7,14	0,281	18,87	157	184	205	205	205	205	205	205
			7,92	0,312	20,78	175	190	205	205	205	205	205	205
			8,56	0,337	22,32	189	190	205	205	205	205	205	205
			2,77	0,109	9,46	49	58	68	75	85	92	98	106
			3,18	0,125	10,83	57	66	78	86	97	105	112	122
5	5,563	Ø141,3	3,40	0,134	11,56	61	71	84	92	104	113	120	130
			3,96	0,156	13,41	71	82	98	108	121	131	140	151
			4,78	0,188	16,09	85	99	118	130	146	158	168	183
			5,56	0,219	18,61	99	116	137	151	170	184	196	205
			6,55	0,258	21,77	117	136	161	178	200	205	205	205
			7,14	0,281	23,62	127	149	176	194	205	205	205	205
			7,92	0,312	26,05	141	165	195	205	205	205	205	205
			8,74	0,344	28,57	156	182	205	205	205	205	205	205
			9,53	0,375	30,97	170	190	205	205	205	205	205	205
			2,77	0,109	11,31	41	48	72	79	89	96	102	111
			3,18	0,125	12,95	48	56	82	91	102	111	118	128
			3,40	0,134	13,83	51	59	88	97	109	118	126	136
6	6,625	Ø168,3	3,58	0,141	14,54	54	63	93	102	115	124	132	144
			3,96	0,156	16,05	59	69	102	113	127	138	146	159
			4,37	0,172	17,67	65	76	113	125	140	152	162	175
			4,78	0,188	19,27	72	84	124	136	153	166	177	192
			5,16	0,203	20,76	77	90	133	147	166	179	191	205
			5,56	0,219	22,31	83	97	144	159	178	193	205	205
			6,35	0,250	25,36	95	111	164	181	204	205	205	205
			7,11	0,280	28,26	106	124	184	203	205	205	205	205
			7,92	0,312	31,32	119	138	205	205	205	205	205	205
			8,74	0,344	34,39	131	153	205	205	205	205	205	205
			9,53	0,375	37,31	143	166	205	205	205	205	205	205
			10,97	0,432	42,56	164	190	205	205	205	205	205	205
			12,70	0,500	48,73	190	190	205	205	205	205	205	205
8	8,625	Ø219,1	3,18	0,125	16,93	37	43	63	70	78	85	90	98
			3,76	0,148	19,97	43	50	75	82	93	100	107	116

Outside Diameter			Wall Thickness		Mass Per Unit Length	Test Pressure (bar)							
NPS	(inch)	(mm)	(mm)	(inch)	(kg/m)	A	B	X42	X46	X52	X56	X60	X65
8	8,625	Ø219,1	3,96	0,156	21,01	46	53	79	87	98	106	113	122
			4,78	0,188	25,26	55	64	95	105	118	128	136	147
			5,16	0,203	27,22	59	69	102	113	127	138	147	159
			5,56	0,219	29,28	64	75	110	122	137	148	158	171
			6,35	0,250	33,31	73	85	126	139	157	170	180	196
			7,04	0,277	36,81	81	94	140	154	174	188	200	205
			7,92	0,312	41,24	91	106	157	174	195	205	205	205
			8,18	0,322	42,55	94	110	162	179	202	205	205	205
			8,74	0,344	45,34	101	117	174	191	205	205	205	205
			9,53	0,375	49,25	110	128	189	205	205	205	205	205
			10,31	0,406	53,08	119	138	205	205	205	205	205	205
			11,13	0,438	57,08	128	149	205	205	205	205	205	205
10	10,750	Ø273,0	12,70	0,500	64,64	146	170	205	205	205	205	205	205
			3,96	0,156	26,27	37	43	72	79	89	96	102	111
			4,19	0,165	27,77	39	45	76	83	94	102	108	117
			4,78	0,188	31,62	44	51	86	95	107	116	124	134
			5,16	0,203	34,08	48	56	93	103	116	125	133	145
			5,56	0,219	36,67	51	60	100	111	125	135	144	156
			6,35	0,250	41,75	59	68	115	127	142	154	164	178
			7,09	0,279	46,49	65	76	128	141	159	172	183	199
			7,80	0,307	51,01	72	84	141	155	175	189	202	205
			8,74	0,344	56,96	81	94	158	174	196	205	205	205
			9,27	0,365	60,29	86	100	167	185	205	205	205	205
			11,13	0,438	71,87	103	120	201	205	205	205	205	205
12	12,750	Ø323,9	12,70	0,500	81,52	117	137	205	205	205	205	205	205
			3,96	0,156	31,24	31	36	60	67	75	81	86	94
			4,37	0,172	34,43	34	40	67	73	83	89	95	103
			4,57	0,180	35,99	36	41	70	77	86	94	100	108
			4,78	0,188	37,62	37	43	73	80	90	98	104	113
			5,16	0,203	40,56	40	47	79	87	97	106	112	122
			5,56	0,219	43,65	43	50	85	93	105	114	121	131
			6,35	0,250	49,73	49	58	97	107	120	130	138	150
			7,14	0,281	55,77	56	65	109	120	135	146	156	169
			7,92	0,312	61,71	62	72	121	133	150	162	173	187
			8,38	0,330	65,20	65	76	128	141	158	172	183	198
			8,74	0,344	67,93	68	79	133	147	165	179	190	205
			9,53	0,375	73,88	74	87	145	160	180	195	205	205
			10,31	0,406	79,73	80	94	157	173	195	205	205	205
			11,13	0,438	85,84	87	101	169	187	205	205	205	205
			12,70	0,500	97,46	99	115	193	205	205	205	205	205

Production Range For Casing Pipe

Outside Diameter		Wall Thickness		Mass Per Unit Length	Test Pressure (bar)		
(mm)	(inch)	(inch)	(mm)	(kg/m)	H40	J55	K55
4 1/2	Ø114,3	0,205	5,21	14,38	201	276	276
		0,224	5,69	15,73	220	302	302
		0,250	6,35	17,38	245	337	337
		0,290	7,37	19,87	285	391	391
		0,337	8,56	22,69	331	454	454
5	Ø127,0	0,220	5,59	17,19	194	267	267
		0,253	6,43	19,69	224	307	307
		0,296	7,52	22,69	261	359	359
		0,362	9,19	27,19	320	439	439
5 1/2	Ø139,7	0,244	6,20	20,91	196	269	269
		0,275	6,98	23,48	221	303	303
		0,304	7,72	25,72	244	335	335
		0,361	9,17	30,05	290	398	398
6 5/8	Ø168,28	0,288	7,32	29,76	192	264	264
		0,352	8,94	35,72	235	322	322
		0,417	10,59	41,67	278	382	382
		0,475	12,06	47,62	316	435	435
7	Ø177,8	0,231	5,87	25,60	146	200	200
		0,272	6,91	29,91	172	236	236
		0,317	8,05	34,67	200	275	275
		0,362	9,19	39,14	228	313	313
		0,408	10,36	43,60	257	353	353
		0,453	11,51	47,92	286	393	393
		0,498	12,65	52,09	314	431	431
7 5/8	Ø193,68	0,300	7,62	35,72	174	239	239
		0,328	8,33	39,29	190	261	261
		0,375	9,52	44,20	217	298	298
		0,430	10,92	50,15	249	342	342
		0,500	12,70	58,04	290	398	398
8 5/8	Ø219,08	0,264	6,71	35,72	135	186	186
		0,304	7,72	41,67	156	214	214
		0,352	8,94	47,62	180	247	247
		0,400	10,16	53,57	205	281	281
		0,450	11,43	59,53	230	316	316
		0,500	12,70	65,48	256	351	351
9 5/8	Ø244,48	0,312	7,92	48,07	143	196	196
		0,352	8,94	53,57	161	222	222
		0,395	10,03	59,53	181	249	249
		0,435	11,05	64,73	200	274	274
		0,472	11,99	69,94	217	297	297
10 3/4	Ø273,05	0,279	7,09	48,74	86	118	118
		0,350	8,89	60,27	108	148	148
		0,400	10,16	67,71	123	169	169
		0,450	11,43	75,90	139	190	190
		0,495	12,57	82,59	152	209	209
13 3/8	Ø339,72	0,330	8,38	71,43	82	112	112
		0,380	9,65	81,10	94	129	129
		0,430	10,92	90,78	106	146	146
		0,480	12,19	101,19	119	163	163
		0,514	13,06	107,15	127	175	175

Length Range

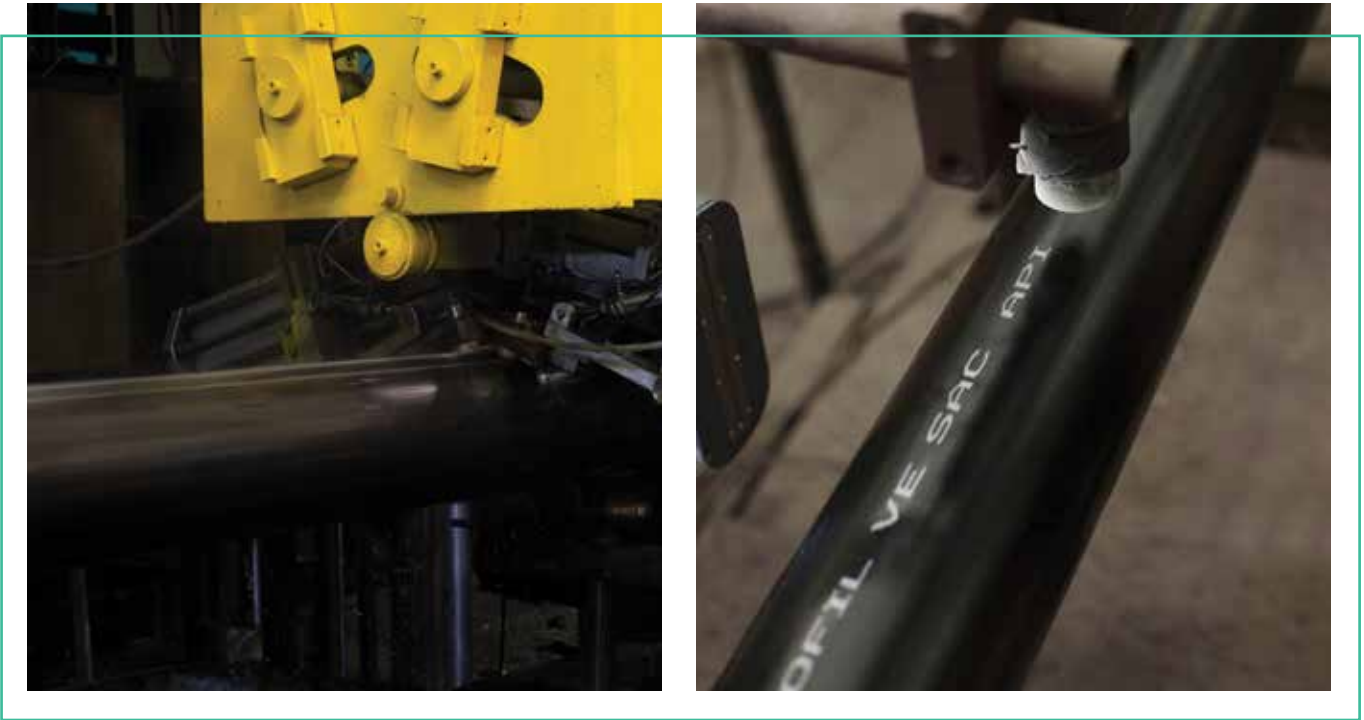
5,0 - 14,0 m

Production Range For Tubing Pipe

Outside Diameter		Wall Thickness		Mass Per Unit Length	Test Pressure (bar)		
(mm)	(inch)	(inch)	(mm)	(kg/m)	H40	J55	K55
1.050	Ø26,67	0,113	2,87	1,70	475	-	-
1.315	Ø33,4	0,133	3,38	2,53	447	-	-
1.660	Ø42,16	0,125	3,18	3,06	333	457	457
		0,140	3,56	3,42	373	-	-
1.900	Ø48,26	0,125	3,18	3,54	291	400	400
		0,145	3,68	4,09	337	462	462
		0,200	5,08	5,43	465	-	-
2 3/8	Ø60,32	0,167	4,24	5,95	310	426	426
		0,190	4,83	6,85	354	486	486
		0,254	6,45	8,63	472	-	-
2 7/8	Ø73,02	0,217	5,51	9,52	333	458	458
		0,276	7,01	11,61	424	-	-
		0,308	7,82	12,80	473	-	-
3 1/2	Ø88,9	0,216	5,49	11,46	273	374	374
		0,254	6,45	13,69	320	440	440
		0,289	7,34	15,18	365	-	-
4	Ø101,6	0,226	5,74	14,14	249	343	343
		0,262	6,65	15,57	289	397	397
		0,330	8,38	19,64	364	500	500
4 1/2	Ø114,3	0,271	6,88	18,75	266	365	365
		0,337	8,56	22,62	331	454	454
		0,380	9,65	25,30	373	-	-

Length Range

4,5 - 8,5 m5,0 - 14,0 m





COATING AND APPLICATIONS

Galvanizing
Polyethylene and Polypropylene Coating
Powder Epoxy Coating
Internal Epoxy Coating
Primer Coating
Heat Treatment



GALVANIZING

COATING AND APPLICATIONS

Galvanizing

HOT DIP GALVANIZING

Galvanizing Class		Galvanizing Standards
Class 1	Si =max %0,03 and %P*2,5 + %Si=max 0,090	EN 10240, ASTM A53
Class 3	Si =% 0,14 - %0,25 and %P =max 0,035	

EN 10240 COATING QUALITY

Minimum Coating Thickness for Inside	Coating Quality (Micron)			Minimum Coating Thickness for Outside	Coating Quality (Micron)		
	A1	A2	A3		B1	B2	B3
	55	55	45		55	40	25

PRE GALVANIZING

Galvanized Sheet Standard	Steel Grade
ASTM A653	CS TYPE B
EN 10346	DX51D+Z
EN 10346	DX52D+Z
EN 10346	DX53D+Z
EN 10346	DX54D+Z
EN 10346	DX56D+Z
EN 10346	HCT590X
EN 10346	HX260LAD+Z
EN 10346	HX300LAD+Z
EN 10346	HX340LAD+Z
EN 10346	HX380LAD+Z
EN 10346	HX420LAD+Z
EN 10346	S220GD+Z
EN 10346	S250GD+Z
EN 10346	S280GD+Z
EN 10346	S320GD+Z
EN 10346	S350GD+Z
EN 10346	S420GD+Z

Galvanized steel sheet coating thickness 40-350 gr/m²

TESTS



CHEMICAL ANALYSIS OF ZINC

✓ Chemical Analysis

COATING THICKNESS TESTS

- ✓ Stripping Test
- ✓ Magnetic Method
- ✓ Copper Sulphate Test

COATING ADHERENCE CONTROL

- ✓ Flattening Test
- ✓ Bending Test

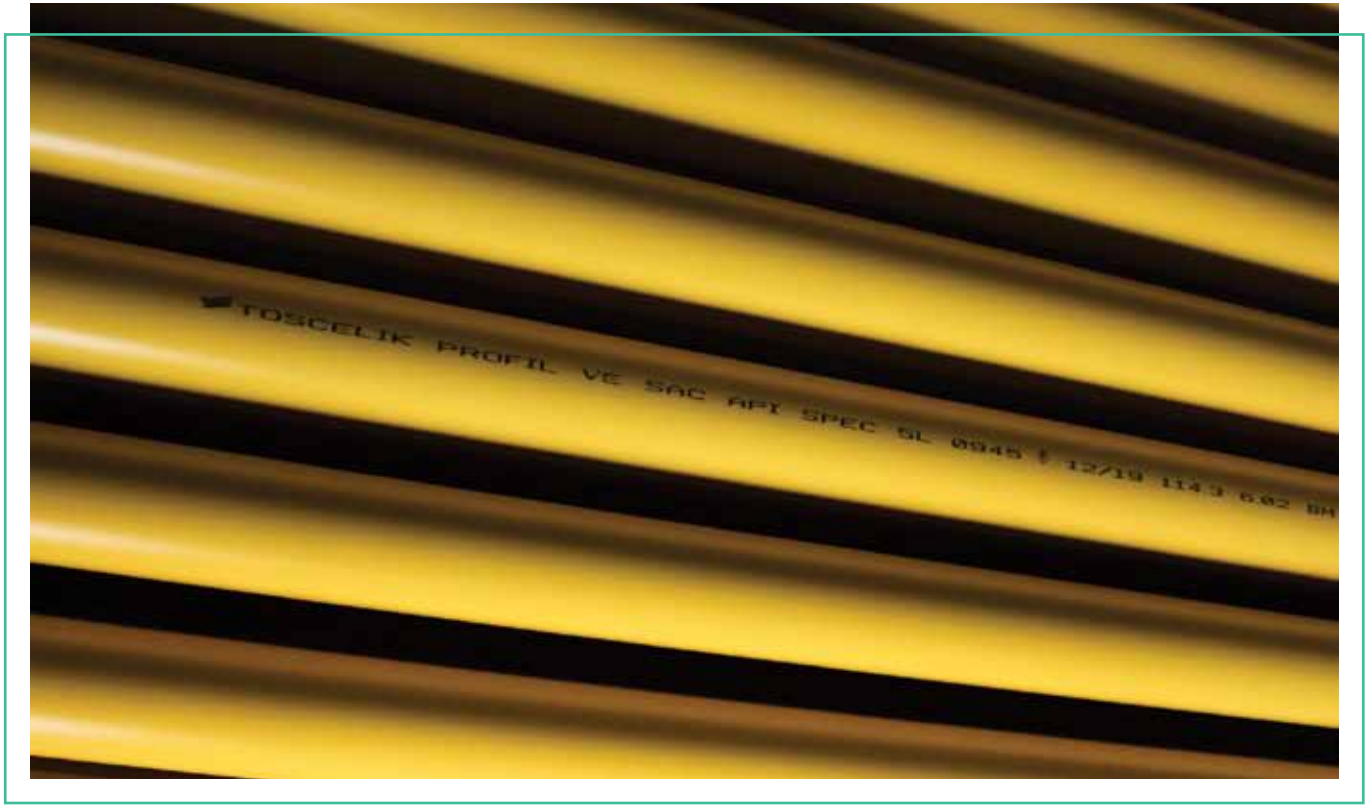




POLYETHYLENE AND POLYPROPYLENE COATING

COATING STANDARDS		3-LAYER COATING	
DIN 30670, ISO 21809-1		Layer 1	Powder Epoxy
		Layer 2	Adhesive
		Layer 3	Polyethylene or Polypropylene

TESTS	
 SURFACE CONTROL AFTER BLASTING ✓ Surface Quality Visual Control ✓ Dust Content Test ✓ Roughness Test ✓ Measurement of Weather Conditions Test ✓ Measurement of Salt Contaminant Test	 3-LAYER POLYETHYLENE AND POLYPROPYLENE COATING TESTS ✓ Measurement of Coating Thickness ✓ Holiday Test ✓ Indentation Hardness Test ✓ Percentage Elongation Test ✓ Peel Strength Test ✓ Impact Strength Test ✓ Electrical Resistivity Test ✓ Cathodic Disbonding Test ✓ Brittleness Test ✓ MFR Test ✓ Vicat Test ✓ Shore D Test





**POWDER EPOXY
COATING**

TESTS

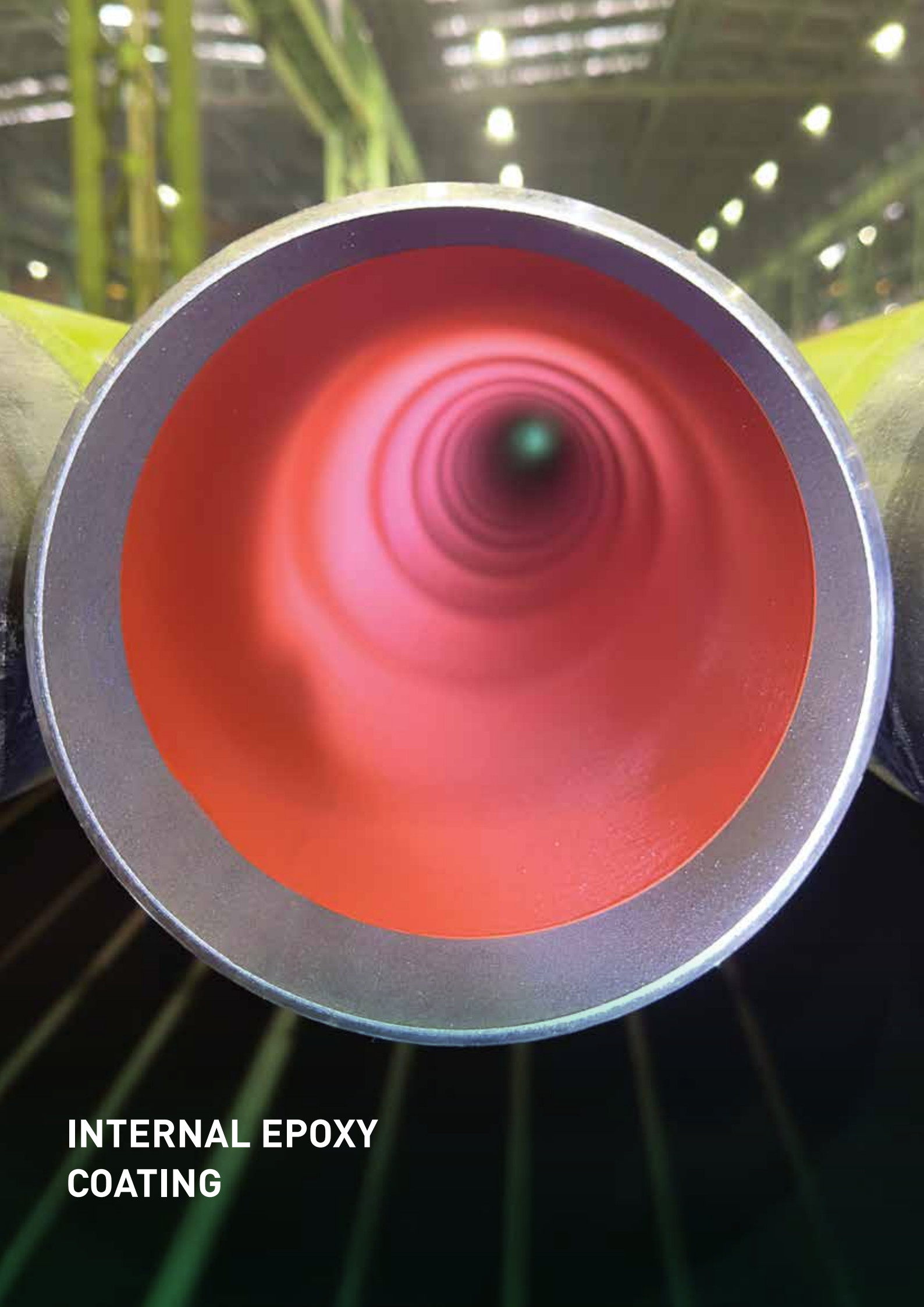
**SURFACE CONTROL
AFTER BLASTING**

- ✓ Surface Quality Visual Control
- ✓ Dust Content Test
- ✓ Roughness Test
- ✓ Measurement of Weather Conditions Test
- ✓ Measurement of Salt Contaminant Test

**POWDER EPOXY
COATING TESTS**

- ✓ Measurement of Coating Thickness
- ✓ Cross-Cut Test
- ✓ Curing Test





INTERNAL EPOXY
COATING

COATING AND APPLICATIONS

Internal Epoxy Coating

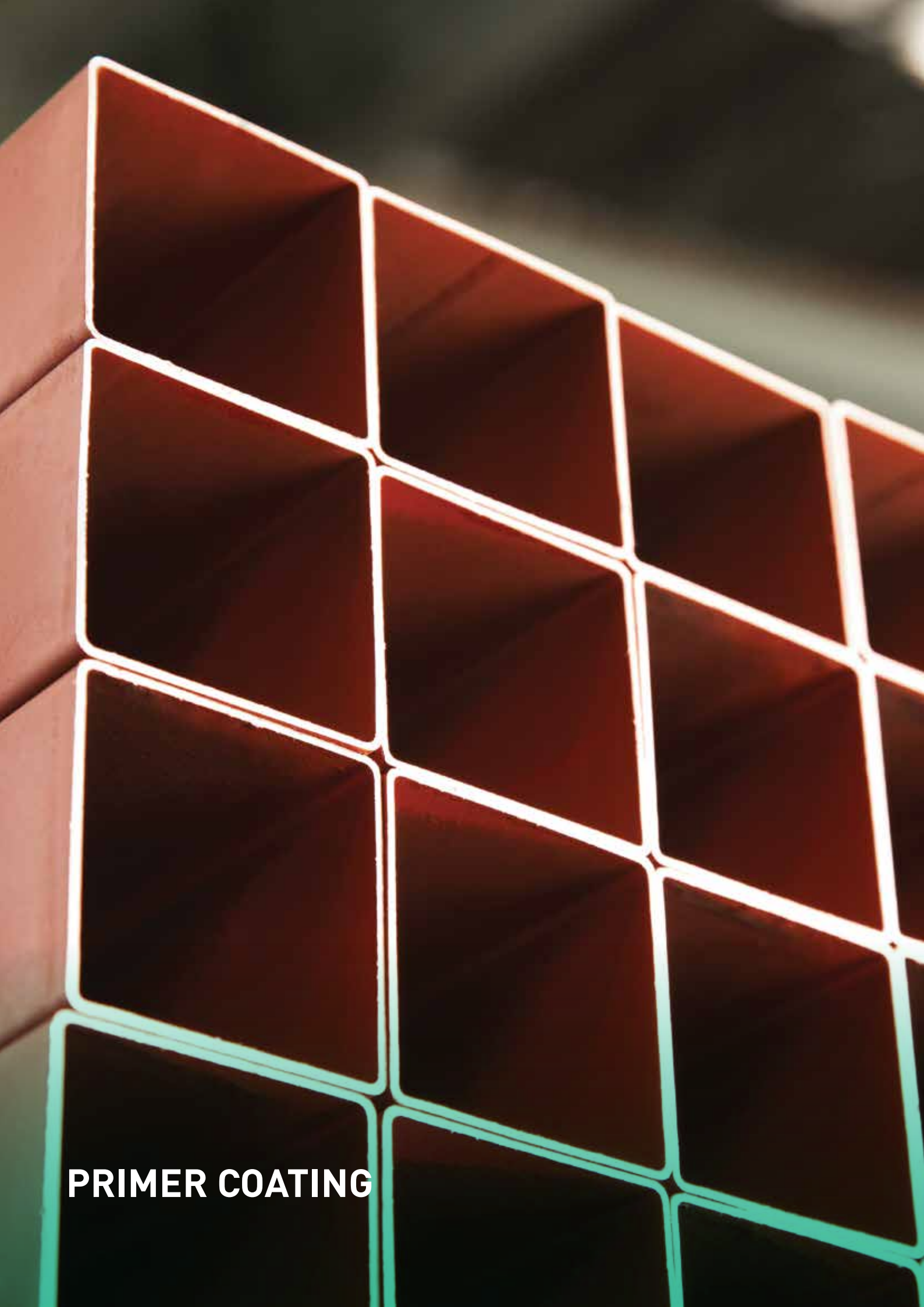
COATING STANDARD
AWWA C210, API RP 5L2



TESTS

EPOXY COATING TESTS
✓ Measurement of Coating Thickness ✓ Holiday Test ✓ Cross-Cut Bond Strength Test ✓ Curing Test ✓ Pinhole Test ✓ Water Test ✓ Disbonding Test ✓ Buchholz Hardness Test ✓ Conical Mandrel Bending Test

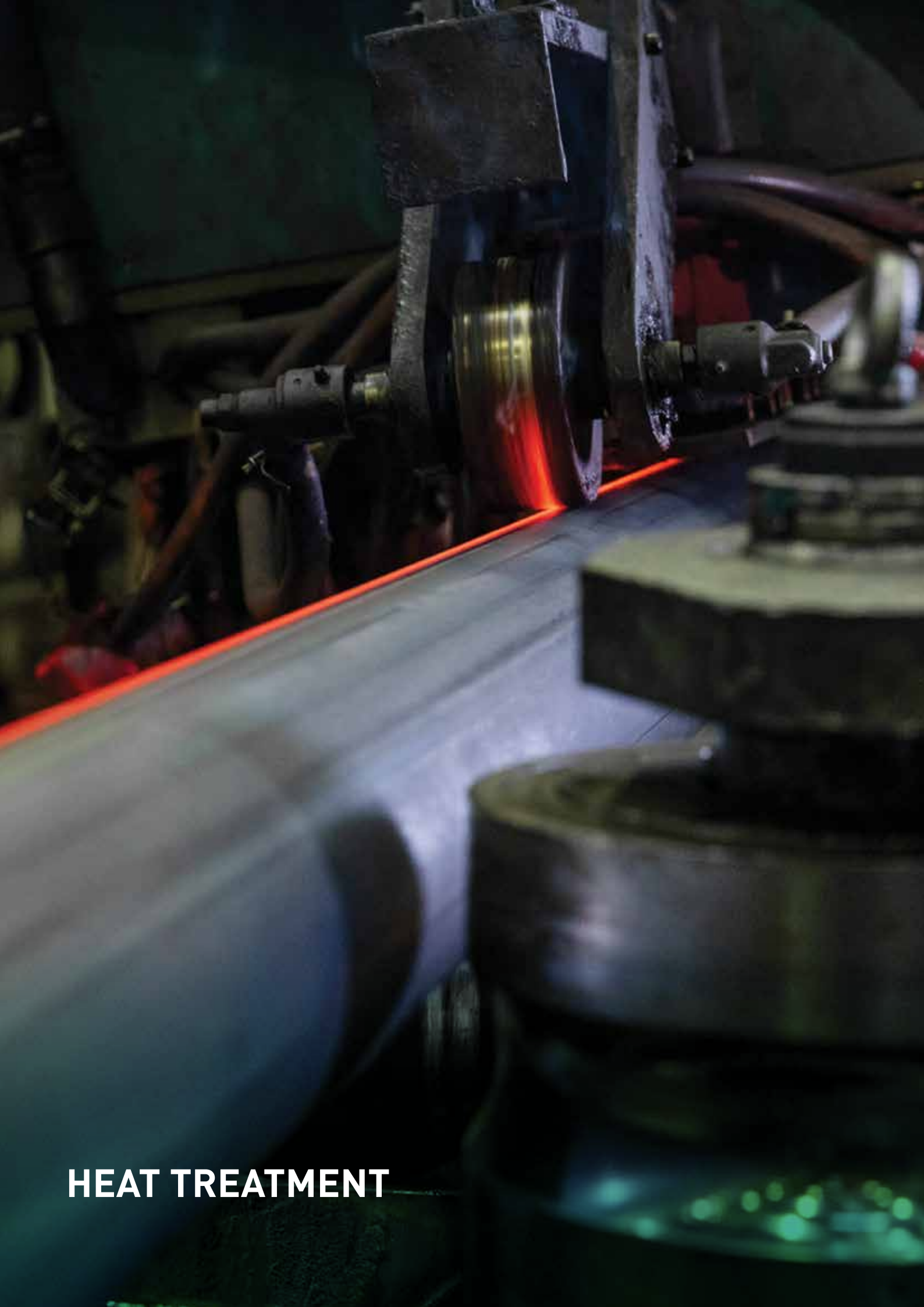




PRIMER COATING

TESTS	
MEASUREMENT OF COATING THICKNESS ✓ Magnetic Method	COATING ADHERENCE CONTROL ✓ Cross-Cut Test



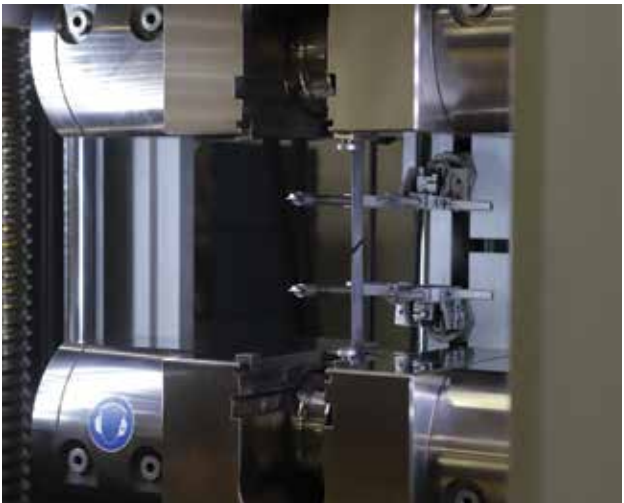


HEAT TREATMENT

HEAT TREATMENT TYPE
Stress Relieving
Normalizing



HEAT TREATMENT ZONE
Weld Seam + HAZ (Heat Affected Zone)
Full Body



VISION GREEN

“

As Tosyali, our vision is to contribute to building a sustainable world via ensuring environmentally production in our facilities, with the help of technology, innovation and renewable energy usage. Within our responsible ecosystem management approach, we produce green steel products in every category of the steel. We produce **less carbon emission, consume less water, focus on renewable energy resources, produce with highest efficiency and recycle all our wastes.**

We believe that a sustainable world is possible with the green transformation of the steel industry.

Fuat Tosyali
Chairman of the Board
of Directors of Tosyali Holding

”

Tosyali proudly presents a new umbrella brand to represent its green steel vision in every touch point of its operations.

Tosyali V-Green

This is not just a brand, it is also the strongest indicator of sustainability actions those have been taking place for many years at Tosyali and will continue by highest determination.

In all our production facilities, we focus on new generation green steel production and under the umbrella of V-Green, we introduce environment friendly products for our suppliers.

How do we make this vision live in Tosyali?

We produce green steel with the help of;

- technology usage,
- innovation,
- renewable energy resources,
- recycling in every touch point production and
- operating with highest efficiency.

We aim to be the world's leading sustainable green steel producer with the lowest carbon footprint.

“

“V” are ready to be “Green”!

V-Green.
Vision Green.



OUR CERTIFICATES

CERTIFICATES OF MANAGEMENT SYSTEM

- ✓ ISO 9001 Quality Management System Certificate
- ✓ API Spec Q1 Quality Management System Certificate
- ✓ ISO 14001 Environmental Management System Certificate
- ✓ ISO 45001 Occupational Health and Safety Management System Certificate
- ✓ ISO 10002 Handling Complaints Management System Certificate
- ✓ ISO 50001 Energy Management System Certificate

CERTIFICATES OF PRODUCTS

- 
- ✓ CE Certificates (EN 10219, EN 10255, EN 10210)
 - ✓ TSE Certificates of Conformity (EN 10219, EN 10255, EN 10217-1, EN 10217-2, TS 8481 EN 39, ISO 3183)
 - ✓ API Spec 5L and API Spec 5CT Monogram Certificates
 - ✓ UKCA Certificate of Conformity (EN 10219, EN 10217-1, EN 10210)
 - ✓ Standards Institute of Israel Certificates of Conformity (SII 530, SII 1458-1, SII 4314, SII 10255)
 - ✓ PED Certificate of Conformity (EN 10217-1, EN 10217-2)
 - ✓ Epoxy Coating Certificate of Conformity (AWWA C210)
 - ✓ PE Coating Certificate of Conformity (DIN 30670, EN ISO 21809-1)
 - ✓ FM Approval Fire Protection Pipes Monogram Certificate (ASTM A53, ASTM A795, EN 10255)
 - ✓ UL Fire Protection Pipes Monogram Certificate (ASTM A53, ASTM A795)
 - ✓ EN 10224 Certificate of Conformity
 - ✓ Poland EN 10217-1 Certificate of Conformity
 - ✓ DVGW (German Technical and Scientific Association for Gas and Water) Approval Galvanized Drinking Water Pipes (DVGW 7101)
 - ✓ KIWA EN 10255 Certificate of Conformity (for Water Pipes)
 - ✓ GASTAC QA EN 10255 Certificate of Conformity (for Gas Pipes)
 - ✓ ASME B31.12 Certificate of Conformity

EPD CERTIFICATES

- (Environmental Product Declaration)
- ✓ Bare ERW Steel Pipes
 - ✓ Hot Dip Galvanized ERW Steel Pipes
 - ✓ Powder Epoxy Coated ERW Steel Pipes
 - ✓ Shop Primer Painted ERW Steel Pipes
 - ✓ 3-Layer Polyethylene & Liquid Epoxy Coated
 - ✓ 3-Layer Polyethylene Coated ERW Steel Pipes
 - ✓ 3-Layer Polypropylene & Liquid Epoxy Coated
 - ✓ 3-Layer Polypropylene Coated ERW Steel Pipes
 - ✓ Bare Steel ERW Hollow Sections
 - ✓ Shop Primer Painted Steel ERW Hollow Sections
 - ✓ Bare ERW Steel Pipes for Natural Gas
 - ✓ Coated ERW Steel Pipes for Natural Gas

GOST-R CERTIFICATE OF CONFORMITY

- ✓ Natural Gas Pipes
- ✓ Water and Gas Pipe
- ✓ Industrial Pipes
- ✓ Scaffolding Pipes
- ✓ Casing Pipes
- ✓ Galvanized Steel Pipes
- ✓ Galvanized Steel Hollow Sections
- ✓ Electric Welded Steel Pipes

DOP-DECLARATION OF PERFORMANCE

- ✓ UKCA EN 10219-1 Declaration of Performance
- ✓ UKCA EN 10210-1 Declaration of Performance
- ✓ EN 10219-1 Declaration of Performance
- ✓ EN 10210-1 Declaration of Performance
- ✓ EN 10255 Declaration of Performance
- ✓ EN 10224 Declaration of Performance
- ✓ EN 10217-1 EU Declaration of Conformity
- ✓ EN 10217-2 EU Declaration of Conformity
- ✓ POLAND EN 10217-1 Declaration of Performance



TOSÇELİK Profil ve Sac

OSMANİYE FACILITIES

Organized Industrial Zone
Toprakkale / Osmaniye / Türkiye

+90 (328) 826 80 80

İSKENDERUN FACILITIES

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DİLOVASI FACILITIES

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Dilovası / Kocaeli / Türkiye

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TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

Markanın Tanımı Description of the Mark
TSE veya/or  veya/or **T S E**

BELGE NUMARASI 026853-TSE-15/02
REFERENCE NUMBER OF LICENCE

BELGENİN İLK VERİLİŞ TARİHİ 10.07.2019
DATE OF FIRST ISSUE OF LICENCE

BELGENİN SON GEÇERLİLİK TARİHİ 16.06.2024
LICENCE VALID UNTIL

BELGE SAHİBİ KURULUŞUN ADI TOSÇELİK PROFİL VE SAC ENDÜSTRİ ANONİM ŞİRKETİ
NAME OF THE LICENCE HOLDER

BELGE SAHİBİ KURULUŞUN ADRESİ ORGANİZE SANAYİ BÖLGESİ NECATİ ÖZSOY CAD. NO:12
ADDRESS OF THE LICENCE HOLDER İSKENDERUN HATAY/TÜRKİYE

ÜRETİM YERİ ADI TOSÇELİK PROFİL VE SAC ENDÜSTRİ ANONİM ŞİRKETİ OSMANİYE
NAME OF THE MANUFACTURING PLACE ŞUBESİ

ÜRETİM YERİ ADRESİ TÜRKMEN BELDESİ BÜYÜKTÜYSÜZ MAH. ALİ İLBAYLI CAD. NO:18
ADDRESS OF THE MANUFACTURING PLACE TOPRAKKALE OSMANİYE / TÜRKİYE

İPTAL EDİLEN BELGE NUMARASI (Varsa) 026853-TSE-15/01
INDICATION OF SUPERSEDED LICENCE (if any)

TESCİLLİ TİCARİ MARKASI tosçelik
REGISTERED TRADE MARK

İLGİLİ TÜRK STANDARDI TS EN ISO 3183 / 16.12.2019
RELATED TURKISH STANDARD

BELGE KAPSAMI
SCOPE OF LICENCE

PETROL VE DOĞALGAZ SANAYİLERİ-BORU HATTI İLE TAŞIMA SİSTEMLERİ İÇİN ÇELİK BORULAR
ASİDİK ORTAM VEYA AÇIK DENİZ HİZMETLERİNDE KULLANILMAYAN, PSL 1, L210 veya GRADE A, L245 veya
GRADE B, L290 veya X42, L320 veya X46, L360 veya X52, HFW, DIŞ ÇAPI 21.3 mm (DAHİL)'DEN 323.9 mm
(DAHİL)'E KADAR, ET KALINLIĞI 2 mm (DAHİL)'DEN 13 mm (DAHİL)'E KADAR,
ASİDİK ORTAM VEYA AÇIK DENİZ HİZMETLERİNDE KULLANILMAYAN, PSL 2, L245 M/N veya GRADE B M/N,
L290 M/N veya X42 M/N, L320 M/N veya X46 M/N, L360 M/N veya X52 M/N, HFW, DIŞ ÇAPI 21.3 mm
(DAHİL)'DEN 323.9 mm (DAHİL)'E KADAR, ET KALINLIĞI 2 mm (DAHİL)'DEN 13 mm (DAHİL)'E KADAR

e-imzalı/e-signed

14.06.2023

Belgelendirme Merkezi Başkanı Adına
FATİH KURT

ADANA BELGELENDİRME MÜDÜRÜ

*Bu belge, belgelendirilen ürünün, üretim yerinin Enstitümüzün belirlediği şartları karşıladığını da gösterir.

*Bu belge, hiç bir suretle tahrif edilemez, kısmen veya okunmasını zorlaştıracak şekilde çoğaltılamaz, kazıntı ve silinti yapılamaz.

*TSE ADANA BELGELENDİRME MÜDÜRLÜĞÜ * Adres: Yakapınar Mah. D-400 Bulvarı No:174 Yüreğir * Telefon: 03224581940-41* Faks: 03224588243

*TSE BELGELENDİRME MERKEZ BAŞKANLIĞI; Adres: Necatibey Cad. No:112 06100 Bakanlıklar/ANKARA – Telefon: 0 312 416 64 81 / 416 64 27, Faks:0 312 416 66 17 E-posta :bmb@tse.org.tr , web : www.tse.org.tr



CERTIFICATE OF CONFORMITY OF STANDARD

Reference Number of Licence:	S/1929802
Date of First Issue of Licence:	25/10/2022
Licence Valid Until:	25/10/2025
Name of the Licence Holder:	TOSÇELİK PROFİL VE SAC ENDÜSTRİ A.Ş.
Address of the Licence Holder:	Organize San. Böl. Necati Özsoy Cad. No:12, 31200 İskenderun / Hatay – Turkey
Manufacturer:	TOSÇELİK PROFİL VE SAC ENDÜSTRİ A.Ş.
Manufacturing Address:	Organize Sanayi Bölgesi Mah. Cebeli Bereket Cad. No:20 TR-80950, Toprakkale, Osmaniye – Turkey
Registered Trade Mark:	TOSÇELİK
Related Standard:	DIN 30670:2012-04: Polyethylene coatings of steel pipes and fittings
Base of Certificate:	Audit Report No: SZU-19102301/2
Scope of Licence:	Polyethylene Coated Steel Pipes Coating thickness: 1,50 mm – 5,00 mm Length: 6000 mm – 14000 mm External diameter: ø 21,30 mm – ø 339,70 mm

The results of the review and this document report can only be valid unless no document under the scope of signed agreement submitted to SZUTEST has been changed, if the agreement terms and the agreement itself remains valid and until the date of validity stated below. For devices, the manufacturer must perform internal manufacturing and quality controls, when necessary, provide proper solutions for essential safety requirements and must provide a declaration of conformity. SZUTEST declares that the aforementioned manufacturer's third-party review of referenced technical file is performed upon voluntary request. It is the manufacturer's sole responsibility to conform to the requirements of any directive/regulation and this document cannot be used as a legal document to claim any type of conformity. This document cannot replace any of these requirements and cannot be used to claim conformance to the requirements of the manufacturer before placing the products on the market. This non-notified review is not a part of any type of notification for EU Regulations and is not related with the notification scope of SZUTEST. The current validity of the certificate shall be checked from SZUTEST's website.


Ilker Erdinc ELINÇ

Head of Construction and Equipment Safety Department