



TOSÇELİK Profil ve Sac

www.toscelik.com.tr

**OSMANİYE
ERW ÇELİK BORU FABRİKASI**

Organize Sanayi Bölgesi P.K.
80950 Toprakkale / OSMANİYE

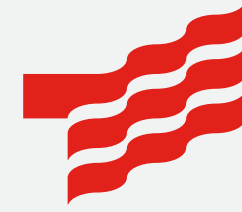
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**İSKENDERUN
ERW ÇELİK BORU FABRİKASI**

Org. San. Böl. Sarıseki
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Tosçelik Profil ve Sac End. A.Ş. bir Tosyalı Holding kuruluşudur.
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TOSÇELİK Profil ve Sac

Doğalgaz ve Petrol Boruları

Natural Gas and Petroleum Pipes





TOSÇELİK Profil ve Sac



***SİZE
ÇELİK TEN
DAHA FAZLASINI
SUNUYORUZ.
WE OFFER YOU
MORE THAN
STEEL.***

Hakkımızda

Saygıdeğer Tosyalı dostları,

Demir-Çelik sektöründeki 60 yılı geçen deneyimi-mizle Tosyalı Holding olarak, Türkiye Cumhuriye-ti'nin 100. Yılı olan 2023 hedeflerine emin adımlarla ilerliyoruz.

Türkiye’de demir çelik sektöründe liderliğini ilan eden Tosyalı Holding, yeni yurtdışı yatırımlarıyla da uluslararası bir marka haline gelmiş durumda. Cezayir’de ve Karadağ’da açılan demirçelik fabrikaları bunun en büyük göstergesi. İskenderun’da gerçekleştirdiğimiz Termik Santral ve liman projesiyle yatırım anlamında büyümeye devam ediyoruz.

Osmaniye’de 758,000 m² alana yayılan Osmaniye Tosçelik Yapısal ve Sac Üretim Tesisleri ise hem ilklerin sahibi olan hem de rekorlara imza atan bir fabrika oldu. Tesis; 19 ay gibi rekor bir sürede tamamlayarak 2009 yılında açtık.

Cumhuriyet tarihindeki ilk özel yassı çelik üretim tesisi olan Tosçelik, Türkiye’nin yassı çelikteki dışa bağımlılığını da azaltan bir işleve sahip.

Bu yatırımı daha verimli hale getirmek, müşteri taleplerine daha hızlı cevap verebilmek amacıyla da, Avrupa’da tek seferde inşa edilmiş en büyük boru profil üretim tesisini de kurarak; Tosçelik; Türkiye’nin boru profilde tartışmasız en büyük lideri oldu.

Hem çeliğini hem de son mamülünü aynı çatı altında üreten ve bu özelliği ile Türkiye’de tek,dün-yada ise birkaç örneğinden biri olan entegre tesis Tosçelik’in yıllık üretim kapasitesi 2 milyon ton.

Tosçelik olarak; boru profil üretiminde sektöre sözlerimiz var. Öncelikle sağlık diyoruz. Tüm boru profil çeşitlerini estetik görünümle birlikte en sağlıklı yöntemlerle ve tüm çevre koruma standartlarının üstüne çıkarak üretiyoruz. Tüketici sağlığının herşeyden önemli olduğunu biliyoruz.Ve bunu sağlamak için de en dikkatli şekilde çalışıyoruz.

Sektörde lider olmak için varız. Hep söyleye geldiğimiz gibi “size çelikten daha fazlasını sunuyoruz”.

FUAT TOSYALI
Yönetim Kurulu Başkanı

About us

Dear friends of Tosyalı,

With the experience of 60 years in Iron and Steel industry, we, as Tosyalı Holding, are moving confidently towards the objectives of 2023, which marks the 100th anniversary of the Republic of Turkey.

Tosyalı Holding, establishing its leadership in Iron and Steel Industry in Turkey, has become an international brand with its new foreign investments. The Iron and Steel Works opened in Algeria and Montenegro are the the most important indicators of this success. We continue to grow our investments with our Power Plant and Port Projects in İskenderun.

In Osmaniye, covering an area of 758,000 m². Osmaniye Tosçelik Structural and Flat Steel Production Plant has become a pioneering and record-breaking factory. We opened the facilities in a record time of 19 months in 2009.

With the objective of making this investment more efficient and responding promptly to customer demands, Tosçelik established ERW Tube and Hollow Section Production Facility, the largest facility of its kind built at one time, making Tosçelik the undisputable leader of Pipe and Hollow Sections in Turkey.

The integrated Tosçelik Facilities, with 2 million tons of annual production capacity, is the first facility in Turkey producing both steel and its final products under the same roof, and one of the few in the world. As Tosçelik, we have some commitments to the tube and hollow section industry. We say health comes first.

With aesthetic appearance in mind, we produce all tube and hollow sections with the most health-conscious methods, exceeding all environmental standards.

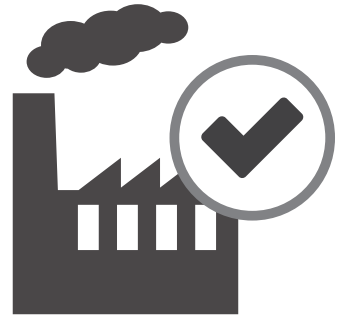
We know that consumer health is of utmost importance and we work meticulously to provide that. We are here to be the leader in the industry.

As we always say, “We offer you more than steel.”

FUAT TOSYALI
Chairman of the Board of Directors

BENZERSİZ BİR TESİS

A UNIQUE FACILITY



Osmaniye Tosçelik ERW fabrikası hem çeliğini hem de borusunu tek çatı altında üreten Türkiye’de eşi benzeri olmayan bir fabrika. Doğalgaz ve Petrol Borularının tek çatı altında üretilmesi hem zaman hem de fiyat avantajı sağlıyor.

Osmaniye Tosçelik ERW Pipe/Hollow Section Plant is a unique facility performing both raw material and pipe production under the same roof. The ability to produce both natural gas and petroleum pipes in the same facility provides advantages in timing and pricing.



HER ŞEY KALİTE İÇİN

EVERYTHING IS FOR QUALITY

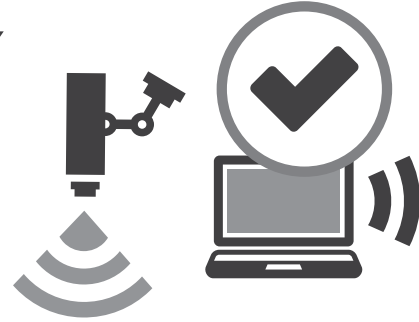
Türkiye’de doğalgaz borusunda pazar lideri olan Tosçelik; doğalgaz ve petrol borularının üretimini sahip olduğu ulusal ve uluslararası sertifikaları yanında, kalite ve müşteri memnuniyeti bilinci altında gerçekleştiriyor. Bunun yanı sıra fabrikada kullanılan son üretim teknolojileri ve tesis içinde yer alan kalite-kontrol laboratuvarıyla üretimin her aşaması sürekli kontrol altında tutulurken, kalitenin sürekliliği sağlanmış oluyor.

Tosçelik, the market leader of natural gas pipe industry in Turkey, produces natural gas and petroleum pipes with national and international certifications, as well as a keen sense of customer satisfaction and quality. Moreover, all stages of production are kept under control by state of the art technologies and an in-house quality-control lab ensuring a constant level of quality.

SAĞLIKLI HAYAT İÇİN TOSÇELİK TOSÇELİK FOR A HEALTHY LIFE

PHASED ARRAY ULTRASONİK TEKNOLOJİSİ

PHASED ARRAY
ULTRASONIC
TECHNOLOGY



Tosçelik doğalgaz tesisat borusu, hat borusu, OCTG (Kılıf ve Sondaj) borusu ve teknolojik boru üretimine ve kalite yatırımlarına sürekli ağırlık veriyor. Türkiye’de ilk defa İskenderun Tesislerinde devreye alınan, yüksek hızlarda ve yüksek tarama alanına sahip “Phased Array” teknolojisi ile kalite seviyesini en yüksek noktaya çıkaran Tosçelik, bu sisteme Türkiye’de ilk defa “Phased Array” Offline kaynak kontrolünü de ekleyerek kalite çitasını bir kez daha yükseltmiş durumda.

Tosçelik focuses on production of natural gas installation pipes, line pipes, OCTG (Oil Company Tubular Goods) and technological pipe production as well as quality investments. Tosçelik, increasing its quality level by using the Phase Array technology, added offline post-weld control to Phased Array technology ultrasonic systems, once again raised the bar for quality.

KALİTEDE ÖNCÜ LEADER IN QUALITY



Tosçelikte Özellikle OCTG için yüksek kapasiteli Hidrotest ve tesisat doğalgaz boruları için “Offline Eddy Current” test sistemleri de kuruldu. Böylece, Tosçelik, tahribatsız muayene konusunda yaptığı büyük yatırımlarla sektörde rakipsiz olduğunu bir kez daha gösteriyor.

Tosçelik has commissioned especially for OCTG, high capacity Hydrostatic tester, and natural gas installation pipes, “Offline Eddy current Systems”. In this way, Tosçelik demonstrates once more again that it is unrivalled with the great investments to Non-Destructive Testing Units.

HER SEKTÖRDE LİDER BORU

THE LEADING PIPE IN ALL INDUSTRIES

Isıl işlem tesisinin de devreye girmesiyle, boru/profillere, normalize/gerilim giderme işlemleri uygulanarak hem mekanik (Esneklik, bükülebilirlik, tane yapısı, tokluk) hem de dış görünüş (parlaklık)-estetik özellikleri artırılmış oldu. Böylece Tosçelik'in, doğalgaz borusu sektöründe liderliği pekişirken, otomotiv ana borusu, kazan borusu, eşanjör borusu gibi borularla bu sektörlerde de söz sahibi olmayı amaçlıyor.

By implementing the Heat Treatment Furnace, normalizing / stress relieving processes are being used, improving both mechanical (elasticity, bending, grain size, toughness) and visual (brightness) aesthetic properties of pipes and hollow sections. While Tosçelik strengthens its leadership position in the natural gas pipe industry, the company also aims to establish its place in the industry of automotive mother pipes, boiler pipes, vessel pipes and exchanger pipes.



DOĞAL GAZ TESİSAT VE HAT BORULARI NATURAL GAS AND LINE PIPES



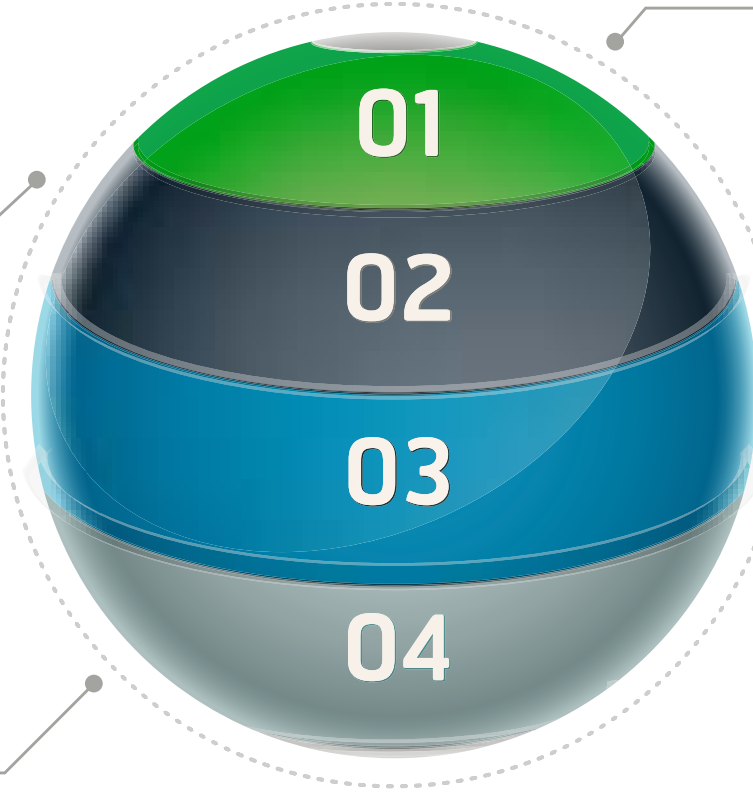
Üretim Standartları & Çelik Kaliteleri / Production Standards & Steel Grades

API 5L / ISO 3183 PSL 1	:	A 25, Gr A, Gr B, X42, X46, X52, X56, X60, X65, X70
API 5L / ISO 3183 PSL 2	:	BM, X42M, X46M, X52M, X56M, X60M, X65M, X 70 M BN, X42N, X46N, X52N, X56N, X60N
API 5L PSL 2 (Sour Service)	:	BMS, X42MS, X46MS, X52MS, X56MS, X60MS, X65MS, X70MS BNS, X42NS, X46NS, X52NS
API 5L PSL 2 (Offshore Service)	:	BMO, X42MO, X46MO, X52MO, X56MO, X60MO, X65MO, BNO, X42NO, X46NO, X52NO
EN 10208-1/2	:	L210GA, L235GA, L245GA, L290GA, L360GA L245NB, L290NB, L360NB, L415NB L245MB, L290MB, L360MB, L415MB, L450MB

Standart spesifikasyonlarına uygun sürekli döküm metodu ile üretilmiş yüksek kaliteli çelik kullanılır. Et kalınlıkları homojen olup laminasyon ve inklüzyon içermez. Fosfor ve kükürt oranları düşük olduğu için korozyon dirençleri yüksektir.

High-quality steel, produced by continuous casting method compatible with standart specifications, is used. The homogenous raw material does not contain any lamination or inclusion. Corrosion resistance is high due to low phosphorus and sulphur concentration.

**KORUYUCU
KAPLAMALAR**
PROTECTIVE COATINGS



**PHASED ARRAY
ULTRASONİK
TEKNOLOJİSİ**

PHASED ARRAY
ULTRASONIC
TECHNOLOGY

**ISIL İŞLEM FULL
TAVLAMA**
FULL BODY
HEAT TREATMENT

**MÜŞTERİ İSTEĞİNE GÖRE
HAMMADDE, ET KALINLIĞI VE
KALİTESİNDE ÇEŞİTLİLİK**

RAW MATERIIL, WALL THICKNESS AND GRADE VARIETY
ACCORDING TO CUSTOMER DEMANDS

Kullanım Yerleri

Fields of Application

Konut ve Sanayi Doğalgaz Tesisatları

Residential and Industrial Natural Gas Installations

LPG Tesisatları

LPG Installations

Her Türlü Yanıcı ve Patlayıcı Gazların İletimi

Transmission of All Types of Burning and Explosive Gases

Petrol ve Petrol Türevlerinin İletimi

Transportation of Petroleum and Its Products



Boru Uçları

Finishing Operations

Düz Uçlu / Square Cut

Kaynak Ağız / Bevelled End

Doğalgaz boruların birleştirilmesi sırasında kaynak nufuziyeti sağlamlığı için kaynak ağızı açılır. Boru uçlarına kaynak ağızının darbelerden etkilenmemesi için özel Tosçelik tapaları takılır.

Ends are beveled for stability of weld penetration ,to be ready for assembly of natural gas pipes.

Special Tosçelik plugs are used to protect the bevelled-end pipes.

Yüzey Durumu

Surface Protection

Su Bazlı Boyalı	(1/2'' - 12'')	(4m - 14.6 m)
Water Based Primer Coating	(1/2'' - 12'')	(4m - 14.6 m)
3 Kat Polietilen Kaplama	(1/2'' - 12'')	(4m - 14.6 m) (DIN 30670)
3 Layer PE Coating	(1/2'' - 12'')	(4m - 14.6 m) (DIN 30670)
Epoksi İç ve Dış Kaplama	(2'' - 12'')	(4m - 14.6 m) (AWWA C210)
Epoxy Lining and Coating	(2'' - 12'')	(4m - 14.6 m) (AWWA C210)
Poliüretan İç Kaplama	(2'' - 12'')	(4m - 14.6 m) (AWWA C222)
Polyurethane Internal Coating	(2'' - 12'')	(4m - 14.6 m) (AWWA C222)

Isıl İşlem

Heat Treatment

21,3 mm ≤ Dış Çap ≤ 339,7 mm: Kaynak Dikişi Tavlama

21,3 mm ≤ OD ≤ 339,7 mm : Weld Seam Annealing

Kaynak dikişi tavlama hat üzerinde, yüksek frekans indüksiyon sistemi ile 538 - 950 °C de gerçekleştirilir. Ana malzeme ile kaynak dikişi bölgesinde oluşan mikro sertlik ve mikroyapı farklılığı giderilir. Kaynak dikişi tavlama ile borunun mekanik mukavemet değerleri iyileştirilirken, korozyon direnci de artırılmış olur.

Weld Seam Annealing is carried out online with high frequency induction system in 538 - 950 °C. Hardness and crystal structure difference between the main material and weld seam are removed by stress-relieving anneal process during production. Mechanical strength values are improved and corrosion resistance is increased by weld seam annealing.

İç Çapak

Inside Bead

İç çapaklar boru içindeki gaz ve sıvı akışında basınç kayıplarına sebep olduğundan dolayı doğalgaz ve hat borularının iç çapakları alınır.

Since the inside beads cause pressure losses inside the tube during gas and liquid flow, the inside beads of Tosçelik natural gas and line pipes are removed by a special equipment.



Boru Gövdesi Isıl İşlem

Heat Treatment

21.3 mm ≤ Dış Çap / diameter ≤ 339.7 mm :Normalize Tavlama /
21.3 mm ≤ Dış Çap / diameter ≤ 339.7 mm :Gerilim Giderme Tavlama

Stress Relieving Annealing
21.3 mm ≤ OD ≤ 339.7 mm :
Normalizing

Gerilim giderme tavlama ve normalize tavlama offline olarak atmosfer kontrollü tav fırınında 550 - 700 °C (gerilim giderme) ve 880-950 °C (normalizasyon)de tüm boru gövdesi üzerinde gerçekleştirilir. Bu işlemler sonrasında ana malzeme ve kaynak dikişi arasındaki mikroyapı ve sertlik farklılıkları giderilir, ürünlerin mekanik, tokluk, tane yapısı ve bükülebilirlik özellikleri iyileştirilir. Tavlama sonrası yüksek yüzey kalitesine sahip ve parlak yüzeyli boru elde edilir.

Stress relieving and normalizing (bright annealing) are carried out offline with atmosphere controlled "rolled hearth furnace" between 550 - 700 °C (Stress relieving) ve 880-950 °C (normalizing) on full pipe body. By means of full body annealing; micro structure and hardness differences between the main material and weld seam are removed and the toughness, grain structure, bending and mechanical properties of the product are improved. After the annealing, pipes with high-polish surfaces, and high surface quality are obtained.

KALİTE KONTROL

Quality Control

Metalografik Muayene

Metallographic Examination

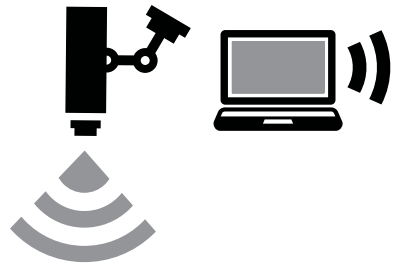
- Makro Yapı Analizi / Macro Examination
- Mikroyapı Analizi / Micro Examination
- Mikro Sertlik Analizi / Micro Hardness Analysis
- Tane Boyutu Kontrolü / Grain Size Control



Sızdırmazlık Testi

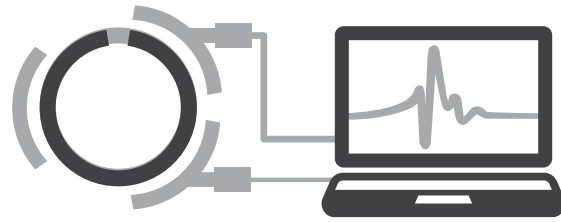
Leak Tightness Testing

- Hidrostatik Test / Hydrostatic Test



Phased Array Tüm Gövde Laminasyon ve Kaynak Kontrol testi

- Phased Array Full Body
Lamination and Weld
Control Test



Tahribatsız Test

Non-Destructive Test

- Eddy Current Testi / Eddy Current Test
- Görsel ve Boyutsal Kontrol
Visual and Dimensional Check
- Kaynak Dikişi Ultrasonik Test
- Ultrasonik Kaynak Profili İzleme Sistemi
Ultrasonic Weld Profiling System
(60.3-339.7 mm) (2 3/8" -13 3/8")

Mekanik Testler

Destructive Tests

- Yassılma Testi / Flattening Test,
- Eğme Testi / Bending Test,
- Genişletme Testi / Expanding Test,
- Çekme Testi / Tensile Test
- Çentik Darbe Testi
Charpy V Notch Impact Test

Kimyasal Analiz

Chemical Analysis

- Spektral Analiz / Spectral Analysis

ÜRETİM MATRİSİ

Production Range

EN 10208-1/2

Dış Çap Outside Diameter			2,00	2,30	2,60	2,80	2,90	3,20	3,40	3,60	3,70	3,90	4,00	4,37	4,50	4,78	5,00	5,20	5,50	5,60	6,00	6,30	6,60	7,10	8,20	8,80	9,30	10,00	11,00	12,70
inch	mm		0,079	0,091	0,102	0,110	0,114	0,126	0,134	0,142	0,146	0,154	0,157	0,172	0,177	0,188	0,197	0,205	0,217	0,220	0,236	0,248	0,260	0,280	0,323	0,346	0,366	0,394	0,433	0,500
1/2	0,840	21,3																												
3/4	1,050	26,7																												
1	1,315	33,4																												
1 1/4	1,660	42,2																												
1 1/2	1,900	48,3																												
2	2,375	60,3																												
2 1/2	2,875	73,0																												
3	3,500	88,9																												
4	4,500	114,3																												
5	5,563	141,3																												
6	6,625	168,3																												
8	8,625	219,1																												
10	10,750	273,0																												
12	12,750	323,9																												

1/2" - 1 1/2" = 4 - 8.5 m

2" - 6" = 5 - 14 m

6" - 12" = 5 - 14.6 m

** Ebatlara göre uzunluk değişebilir. | Length varies with the dimensions specified in the production program

Tabloda yer almayan, ancak ilgili üretim matrisindeki çap aralıklarındaki ara et kalınlıkların üretimi mümkündür
For the sizes not shown in the table, the intermediate wall thicknesses in the range of outside diameter can be produced.





1/2" - 1 1/2" = 4 - 8.5 m
 2" - 6" = 5 - 14 m
 6" - 12" = 5 - 14.6 m

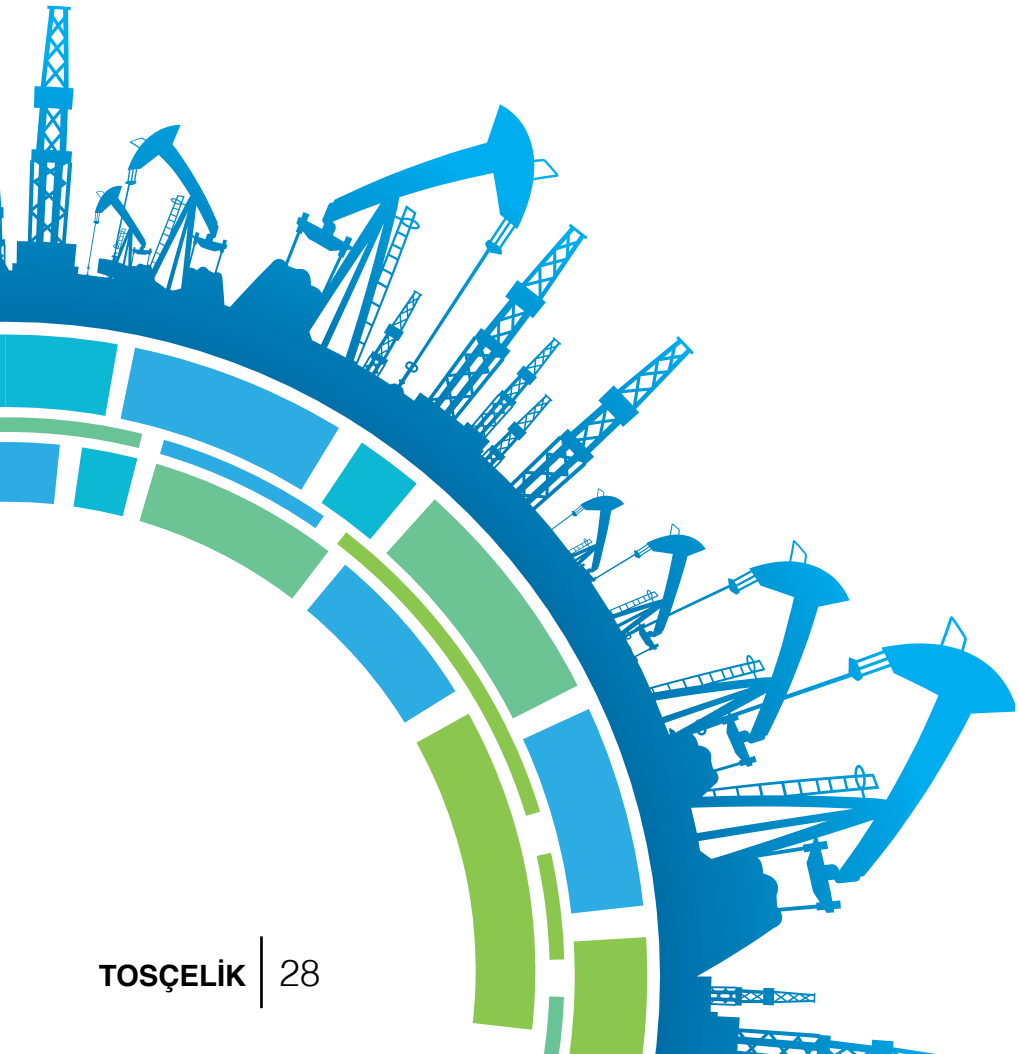
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API 5L / ISO 3183 Standard Series

Dış Çap		Et Kalınlığı		Birim Ağırlık	
Specified Outside Diameter		Specified Wall Thickness		Plain-End Weight Per Unit Length	
inch	mm	inch	mm	lb/ft	kg/m
0.840	21.3	0.109	2.80	0.85	1.28
1.050	26.7	0.113	2.90	1.13	1.70
1.315	33.4	0.133	3.40	1.68	2.52
1.660	42.2	0.140	3.60	2.27	3.43
1.900	48.3	0.145	3.70	2.72	4.07
2.375	60.3	0.154	3.90	3.66	5.42
2.875	73.0	0.203	5.20	5.80	8.69
3.500	88.9	0.216	5.50	7.58	11.31
4.000	101.6	0.226	5.70	9.08	13.48
4.500	114.3	0.237	6.00	10.73	16.02
5.563	141.3	0.258	6.60	14.69	21.92
6.625	168.3	0.280	7.10	18.91	28.22
6.625	168.3	0.432	11.00	28.59	42.67
8.625	219.1	0.277	7.00	24.53	36.61
8.625	219.1	0.322	8.20	28.57	42.65
8.625	219.1	0.500	12.70	43.31	64.64
10.750	273.1	0.280	7.10	31.20	46.57
10.750	273.1	0.307	7.80	34.19	51.03
10.750	273.1	0.365	9.30	40.53	60.50
10.750	273.1	0.500	12.70	54.64	81.55
12.750	323.9	0.330	8.40	43.79	65.35
12.750	323.9	0.375	9.50	49.35	73.65
12.750	323.9	0.500	12.70	65.30	97.46

PETROL SONDAJ VE MUHAFAZA BORULARI CASING/TUBING



Ürün Spesifikasyon Seviyesi Product Specification Level

PSL 1 - Grup 1 / PSL 1 - Group 1

Üretim Standartları & Çelik Kaliteleri Production Standards & Steel Grades

API 5CT PSL 1 - Grup 1 / API 5CT PSL 1 - Group 1
H 40 , J 55, K 55, UPGRADABLE J 55

Kullanım Yerleri Fields of Application

Petrol Kuyuları İçin Sondaj ve Sondaj Muhafaza Borusu
Casing and Tubing Pipes For Oil Wells

Boru Uçları / Finishing Operations

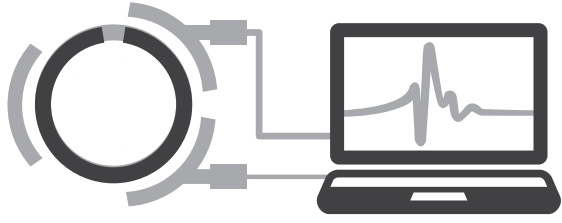
Düz Uçlu / Plain End
Kaynak Ağzı (Müşteri İsteği İle) / Bevelled End (upon Customer Demand)

Yüzey Durumu / Surface Protection

Su Bazlı Boyalı (Müşteri İsteği İle)
Water Based Primer Coated (upon Customer Demand)

KALİTE KONTROL

Quality Control



Tahribatsız Test

Non-Destructive Test

-Girdap Akımları Testi
(Müşteri İsteği İle)
Eddy Current Test
(upon Customer Demand)

-Kaynak Dikişi Ultrasonik Test
(Müşteri isteği ile)
Ultrasonic Test of Weld Seam
(upon Customer Demand)

-Gövde Laminasyon Ultrasonik Test
(Müşteri İsteği İle)
Phased Array Test of Full Body Lamination
(upon Customer Demand)

-Boru Ucu Manuel Ultrasonik Test
(Müşteri isteği ile)
Manual Ultrasonic Test of Pipe end
(upon Customer Demand)

-Ultrasonik Kaynak Profili İzleme Sistemi
Ultrasonic Weld Profiling System

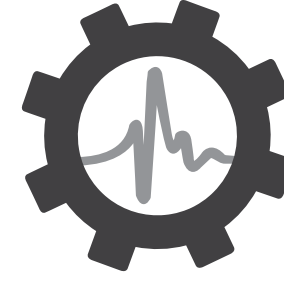
-Görsel ve Boyutsal Kontrol
Visual and Dimensional Check



Sızdırmazlık Testi

Leak Tightness Testing

-Hidrostatik Test / Hydrostatic Test



Mekanik Testler

Destructive Tests

-Yassılma Testi / Flattening Test
-Eğme Testi / Bending Test
-Genişletme Testi / Expanding Test
-Çekme Testi / Tensile Test
-Çentik Darbe Testi
Charpy V Notch Impact Test



Kimyasal Analiz

Chemical Analysis

-Spektral Analiz / Spectral Analysis



Drift Testi

Drift Test

Uzunluk

Length

1/2" - 1 1/2" = 4 - 8,5 m
2" - 6" = 5-14 m 6" - 13 3/8" = 5 - 14.6 m



Test Sertifikası

Mill Test Certificates

EN 10204 (TS EN 10204)'e göre 2.1, 2.2,
3.1, 3.2 belgeleri
According to EN 10204 2.1, 2.2, 3.1, 3.2

ÜRETİM MATRİSİ

Production Range

Muhafaza Boruları

Casing



Dış Çap | Outside Diameter		Et Kalınlığı | Wall Thickness	
inch	mm	inch	mm
4 1/2	114.3	0.205	5.21
4 1/2	114.3	0.224	5.69
4 1/2	114.3	0.250	6.35
4 1/2	114.3	0.290	7.37
4 1/2	114.3	0.337	8.56
5 1/2	139.7	0.244	6.20
5 1/2	139.7	0.275	6.98
5 1/2	139.7	0.304	7.72
5 1/2	139.7	0.361	9.17
6 5/8	168.3	0.288	7.32
6 5/8	168.3	0.352	8.94
6 5/8	168.3	0.417	10.59
6 5/8	168.3	0.475	12.06
7	177.8	0.231	5.87
7	177.8	0.272	6.91
7	177.8	0.317	8.05
7	177.8	0.362	9.19
7	177.8	0.408	10.36
7	177.8	0.453	11.51
7	177.8	0.498	12.65
7 5/8	193.7	0.300	7.62
7 5/8	193.7	0.328	8.33
7 5/8	193.7	0.375	9.52
7 5/8	193.7	0.430	10.92
7 5/8	193.7	0.500	12.70
8 5/8	219.1	0.264	6.71
8 5/8	219.1	0.304	7.72
8 5/8	219.1	0.352	8.94
8 5/8	219.1	0.400	10.16
8 5/8	219.1	0.450	11.43
8 5/8	219.1	0.500	12.70
9 5/8	244.5	0.312	7.92
9 5/8	244.5	0.352	8.94
9 5/8	244.5	0.395	10.03
9 5/8	244.5	0.435	11.05
9 5/8	244.5	0.472	11.99
10 3/4	273.1	0.279	7.09
10 3/4	273.1	0.350	8.89
10 3/4	273.1	0.400	10.16
10 3/4	273.1	0.450	11.43
10 3/4	273.1	0.495	12.57
13 3/8	339.7	0.330	8.38
13 3/8	339.7	0.380	9.65
13 3/8	339.7	0.430	10.92
13 3/8	339.7	0.480	12.19

Sondaj Boruları

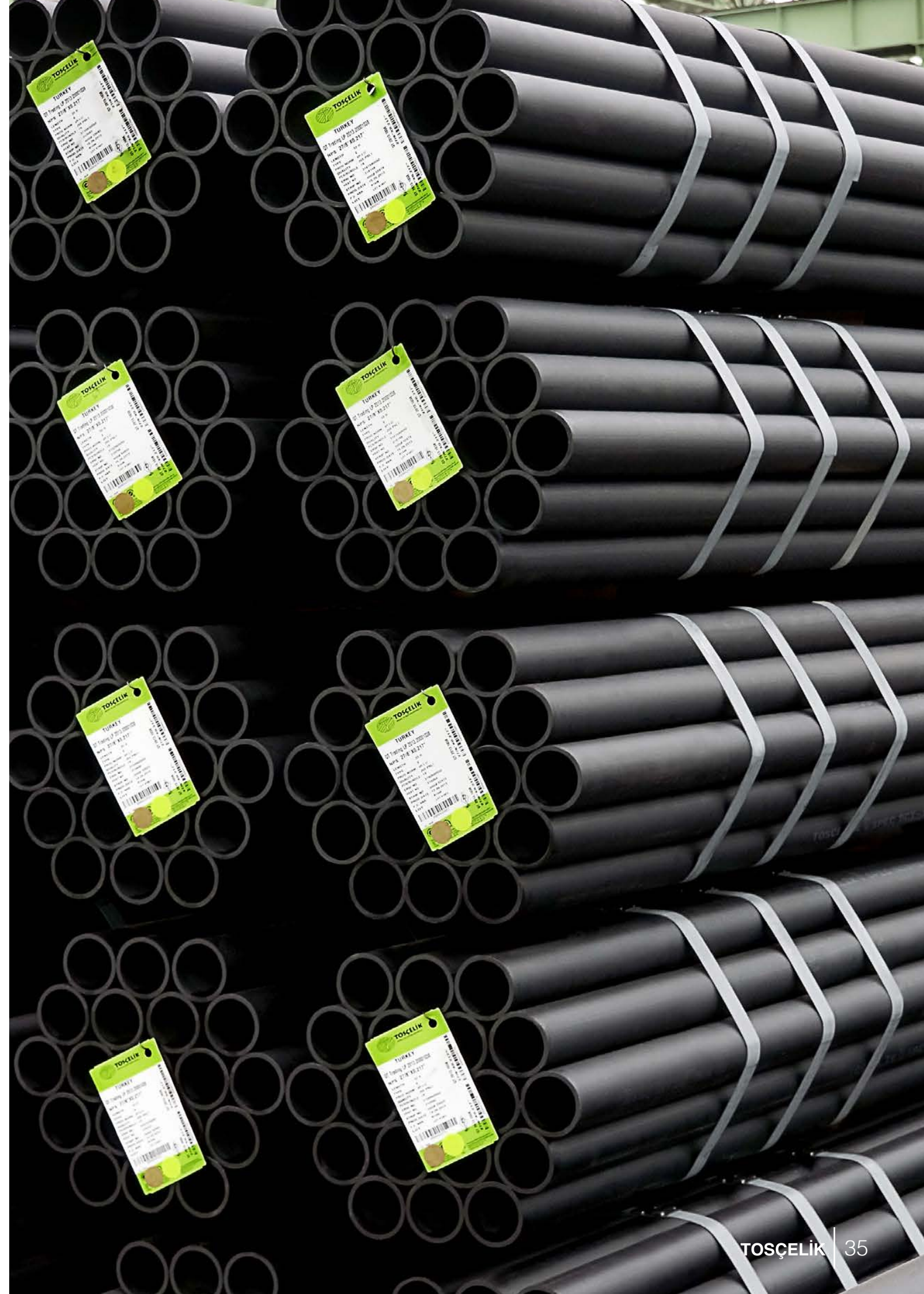
Tubing

Dış Çap | Outside Diameter | Et Kalınlığı | Wall Thickness

inch	mm	inch	mm
1.050	26.67	0.113	2.87
1.315	33.40	0.133	3.38
1.660	42.16	0.125	3.18
1.660	42.16	0.140	3.56
1.900	48.26	0.125	3.18
1.900	48.26	0.145	3.68
1.900	48.26	0.200	5.08
2 3/8	60.32	0.167	4.24
2 3/8	60.32	0.190	4.83
2 3/8	60.32	0.198	5.03
2 3/8	60.32	0.254	6.45
2 7/8	73.02	0.217	5.51
2 7/8	73.02	0.276	7.01
2 7/8	73.02	0.308	7.82
3 1/2	88.90	0.216	5.49
3 1/2	88.90	0.254	6.45
3 1/2	88.90	0.289	7.34
4 1/2	114.30	0.271	6.88
4 1/2	114.30	0.337	8.56
4 1/2	114.30	0.380	9.65

Ebatlara Göre Üretilen Kaliteler | Grades Produced According to Size

	: H40
	: H40 - J55(UPG)
	: H40 - J55 (UPG) - K55



ÜRETİM MATRİSİ

Production Range



API 5 CT MUHAFAZA BORULARI | API 5 CT CASING

Dış Çap Outside Diameter		Et Kalınlığı Wall Thickness		İç Çap Inside Diameter	Standart Drift Çapı Std. Mandrel Diameter	Alternatif Dirift Çapı Special Mandrel Diameter	Birim Ağırlık Mass Per Unit
inch	mm	inch	mm	mm	mm	mm	Kg/m
4 1/2	114.3	0.205	5.21	103.88	100.7	....	14.02
4 1/2	114.3	0.224	5.69	102.92	99.74	....	15.24
4 1/2	114.3	0.250	6.35	101.60	98.42	....	16.91
4 1/2	114.3	0.290	7.37	99.56	96.38	....	19.44
4 1/2	114.3	0.337	8.56	97.18	94.00	....	22.32
5	127	0.220	5.59	115.82	112.64	....	16.74
5	127	0.253	6.43	114.14	110.96	....	19.12
5	127	0.296	7.52	111.96	108.78	....	22.16
5	127	0.362	9.19	108.62	105.44	....	26.7
5 1/2	139.7	0.244	6.20	127.64	124.12	....	20.41
5 1/2	139.7	0.275	6.98	125.74	122.56	....	22.85
5 1/2	139.7	0.304	7.72	124.26	121.08	....	25.13
5 1/2	139.7	0.361	9.17	121.36	118.18	....	29.52
6 5/8	168.3	0.288	7.32	153.64	150.46	....	29.06
6 5/8	168.3	0.352	8.94	150.4	147.22	....	35.13
6 5/8	168.3	0.417	10.59	147.1	143.92	....	41.18
6 5/8	168.3	0.475	12.06	144.16	140.98	....	46.46
7	177.8	0.213	5.87	166.06	162.80	....	24.89
7	177.8	0.272	6.91	163.98	160.80	....	29.12
7	177.8	0.317	8.05	161.70	158.52	158.75	33.70
7	177.8	0.362	9.19	161.70	156.24	....	38.21
7	177.8	0.408	10.36	157.08	153.90	....	42.78
7	177.8	0.453	11.51	154.78	151.60	152.4	47.20
7	177.8	0.498	12.65	152.50	152.50	....	51.52
7 5/8	193.7	0.300	7.62	178.44	175.26	....	34.96
7 5/8	193.7	0.328	8.33	177.02	173.84	....	38.08
7 5/8	193.7	0.375	9.52	174.64	171.46	....	43.24
7 5/8	193.7	0.430	10.92	171.84	168.66	....	49.22
7 5/8	193.7	0.500	12.70	168.28	165.1	....	56.68
8 5/8	219.1	0.264	6.71	205.66	202.48	....	35.14
8 5/8	219.1	0.304	7.72	203.64	200.46	....	40.24
8 5/8	219.1	0.352	8.94	201.20	198.02	200.02	46.33
8 5/8	219.1	0.400	10.16	198.76	198.58	....	52.35
8 5/8	219.1	0.450	11.43	196.22	193.04	193.68	58.53
8 5/8	219.1	0.500	12.70	193.68	187.6	....	71.51
9 5/8	244.5	0.312	7.92	228.6	224.66	....	46.20
9 5/8	244.5	0.352	8.94	226.6	222.63	....	51.93
9 5/8	244.5	0.395	10.03	224.4	220.45	222.25	57.99
9 5/8	244.5	0.435	11.05	222.4	218.41	....	63.61
9 5/8	244.5	0.472	11.99	220.5	216.54	....	68.75
10 3/4	273.1	0.279	7.09	258.90	254.91	....	46.50
10 3/4	273.1	0.350	8.89	255.30	251.31	....	57.91
10 3/4	273.1	0.400	10.16	252.70	248.77	250.82	65.87
10 3/4	273.1	0.450	11.43	250.20	246.23	....	73.75
10 3/4	273.1	0.495	12.57	247.90	243.94	244.48	80.75
13 3/8	339.7	0.330	8.38	322.96	318.99	....	68.48
13 3/8	339.7	0.380	9.65	320.42	316.45	....	78.55
13 3/8	339.7	0.430	10.92	317.88	313.91	....	88.55
13 3/8	339.7	0.480	12.19	315.34	311.37	....	98.46

KORUYUCU KAPLAMA PROTECTIVE COATINGS



Kaplama Standartları Coating Standards

Yüzey Hazırlama Surface Preparation

Dış Kaplama External Coating

3 Katlı Polietilen Kaplama / 3 Layer Polyethylene Coating

DIN 30670, TS EN 10288, UNI 9099, NFA 49710

İç Kaplama / Internal Coating

Epoksi Kaplama / Epoxy Coating

: AWWA C 210

Poliüretan Kaplama / Polyurethane Coating

: AWWA C 222

KALİTE KONTROL

Quality Control



Kumlama Sonrası Yüzey Kontrolü

Surface Control After Blasting

-Yüzey Kalitesi Kontrolü
Surface Quality Control

-Toz İçeriği Testi
Dust Content Test

-Pürüzlülük Testi
Roughness Test

-Hava Şartlarını Ölçme Testi
Measuring Weather Conditions Test



3 Katlı Polietilen Kaplama Testleri 3 Layer Polyethylene Coating Tests

-Kalınlık Ölçme Testi
Thickness Measuring Test

-Holiday Testi
Holiday Test

-Delici Uca Karşı Direnç Testi
Indentation Hardness Test

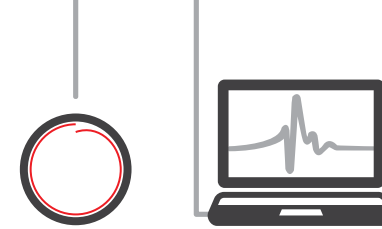
-Yüzde Uzama Testi
Percentage Elongation Test

-Yapışma Testi
Bond Strength Test

-Darbe Direnci Testi
Impact Strength Test

-Elektriksel Direnç Testi
Electrical Resistivity Test

-Katodik Soyulma Testi
Cathodic Disbonding Test



Epoksi Kaplama Testleri Epoxy Coating Tests

-Kalınlık Ölçme Testi
Thickness Measuring Test

-Holiday Testi
Holiday Test

-MEK Sürtme Testi
Methyl Ethyl Ketone Rasping Test

-X - Cut Yapışma Testi
X - Cut Bond Strength Test

-Kimyasal Daldırma Testi
Chemical Immersion Test



Poliüretan Kaplama Testleri Polyurethane Coating Tests

-Kalınlık Ölçme Testi
Thickness Measuring Test

-Holiday Testi
Holiday Test

-Konik Bükme Testi
Flexibility Test

-V - Cut Yapışma Testi
V - Cut Bond Strength Test

-Kimyasal Direnç Testi
Chemical Strength Test

-Katodik Soyulma Testi
Cathodic Disbonding Test

ÜRETİM MATRİSİ

Production Range



Dış Çap Outside Diameter mm	Et Kalınlığı (mm) | Wall Thickness (mm)																						
	2,60	2,90	3,20	3,60	4,00	4,37	4,50	4,78	5,00	5,20	5,60	6,00	6,30	6,50	7,10	8,00	8,80	9,00	10,00	11,00	12,50	13,00	
Ø21,3																							
Ø26,9																							
Ø33,4																							
Ø33,7																							
Ø42,4																							
Ø42,2																							
Ø48,3																							
Ø60,3																							
Ø76,1																							
Ø88,9																							
Ø114,3																							
Ø139,7																							
Ø165,1																							
Ø168,3																							
Ø177,8																							
Ø193,7																							
Ø219,1																							
Ø244,5																							
Ø273,0																							
Ø323,9																							
Ø339,7																							

(6 - 8.5 m) Sadece Dış Kaplama Yapılır. | Only External Coating is Performed.

(6 - 14 m) İç - Dış Kaplama Yapılır. | External - Internal Coating is Performed.

Tabloda yer almayan, ancak ilgili üretim matrisindeki çap aralıklarındaki ara et kalınlıkların üretimi mümkündür.

For the sizes not shown in the table, the intermediate wall thicknesses in the range of outside diameter can be produced.



Certificate of Authority to use the Official API Monogram

License Number: 5CT-1480

ORIGINAL

The American Petroleum Institute hereby grants to

TOSCELİK PROFILE AND SHEET IND. CO.
Osmaniye ERW Pipe Facility
Organize Sanayi Bolgesi
Osmaniye, Toprakkale
Turkey

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API Spec 5CT** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram should be used in conjunction with this certificate number: **5CT-1480**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: **Manufacturer of Electric-Welded Casing or Tubing Plain End at Group 1, H40/PSL 1, J55/PSL 1, K55/PSL 1; Processor of Casing or Tubing Plain End at Group 1, J55/PSL 1, K55/PSL 1**

QMS Exclusions: Section 7.3, Design and Development; Section 7.5.4, Customer Property

Effective Date: **SEPTEMBER 5, 2012**
Expiration Date: **SEPTEMBER 5, 2015**

To verify the authenticity of this license, go to www.api.org/compositelist.

American Petroleum Institute
John W. Madine
Director of Global Industry Services



CERTIFICATE

FOR PRODUCT OF MATERIAL MANUFACTURER
CONFORMING TO
PRESSURE EQUIPMENT DIRECTIVE 97/23/EC

No : TA 295 12 1868

Manufacturer : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi, Sarıseki
İskenderun - HATAY / TURKEY

in the Factory : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi
Toprakkale - OSMANİYE / TURKEY

The submitted datum manufacturer has been approved according to Pressure Equipment Directive 97/23/EC

Product : Electric Resistance Welded (ERW) Pipes

Type : Length : **4 to 14,6 m**
Outside diameter : **10,3 mm to 339,7 mm**
Wall Thickness : **0,6 to 13 mm**

The scope of this approval and other details are described in our Technical Report.

All requirements are met.

Beside other the following main preconditions are given:

- Technical equipment for a proper and up-to-date manufacturing and testing,
- A quality assurance which guarantees that manufacturing and inspection of products stated in our report, are carried out in accordance with technical regulations.
- Competent supervising and inspecting personnel.

Base of certificate : Final Report No : TSC-PED-270712

This certificate was first issued on 30 July 2012. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included steel pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

The validity of Certificate is limited to: 29 July 2015

Mr. Fatih Cihan ÖNDER
Issued and signed by TÜV AUSTRIA CERT GMBH

"The duplication of this document in parts is subject to the approval by TÜV AUSTRIA CERT GMBH"

TÜV AUSTRIA CERT GMBH
Kriegerstraße 16, A-1015
Wien-AUSTRIA www.tuv.at
Tel : +43 / 1 / 514 07 - 6062
Fax : +43 / 1 / 514 07 - 6065
E-mail : cert@tuv.at





CERTIFICATE

OF FACTORY PRODUCTION CONTROL ACC. TO EN 10208-2
Steel Pipes for Pipelines for combustible fluids
Technical Delivery Conditions
Part 2 : Pipes of requirement class B

Number : TA 295 12 1867

This certificate has been prepared in accordance with Technical Committee's Conclusion ECISS/TC 29 "Steel Tubes and fittings for steel tubes" and Subcommittee SC 2 "Line Pipes". It has been stated that

The Construction Product : The requirements for welded steel Pipe that, as a rule, are used to convey combustible fluids, excluding applications for Pipelines for combustible fluids

Type : According to Standard for Electric Resistance Welded (ERW) Pipes:
EN 10208-2:2009
Steel Quality : **L245NB, L290NB, L360NB, L415NB, L245MB, L290MB, L360MB, L415MB, L450MB, L485MB**
Length : **4 to 14,6 m**
Outside diameter : **10,3 mm to 339,7 mm**
Wall Thickness : **0,6 to 13 mm**

Descriptions : Pressure pipes, Steels, Pipes, Seamed pipes, Welding, Delivery, Unalloyed steels

Cross References : EN 473, EN ISO 5173, EN 1011-1 and 2, EN ISO 6892-1, EN 10020, EN 10021, EN 10027-1, EN 10027-2, EN ISO 148-1, EN 10052, EN 10079, EN 10168, EN 10204, EN 10220, EN ISO 10893-2, EN ISO 10893-3, EN ISO 10893-10, EN ISO 10893-11, EN ISO 10893-6, EN ISO 10893-8, EN ISO 10893-9, EN 10256, EN 10266, EN 10274, EN ISO 377, EN ISO 2566-1, EN ISO 6506-1, EN ISO 6508-1, EN ISO 8492, EN ISO 14284, ISO 19232-1, CEN/TR 10261

Produced by Manufacturer : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi İskenderun / Hatay - TURKEY

in the Factory : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi Osmaniye - TURKEY

is submitted by the manufacturer to the initial type-testing of the product a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the certification body TÜV AUSTRIA has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

of the standard : EN 10208-2:2009
Base of certificate : Final Report No : TSC-10208-12-01

This certificate was first issued on 30 July 2012. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included steel pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

The validity of Certificate is limited to: 29 July 2014

ON BEHALF OF TÜV AUSTRIA CERT GMBH

Issued by: Name: Mustafa Şirin
Sign: *Mustafa Şirin*

Validated by: Name: Fatih Cihan ÖNDER
Sign: *Fatih Cihan ÖNDER*

"The duplication of this document in parts is subject to the approval by TÜV AUSTRIA CERT GMBH"

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Fax : +43 / 1 / 514 07 - 6065
E-mail : cert@tuv.at





Certificate of Authority to use the Official API Monogram

License Number: 5L-0945

ORIGINAL

The American Petroleum Institute hereby grants to

TOSCELİK PROFILE AND SHEET IND. CO.
Osmaniye ERW Pipe Facility
Organize Sanayi Bolgesi
Osmaniye, Toprakkale
Turkey

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API Spec 5L** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram should be used in conjunction with this certificate number: **5L-0945**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: **Manufacturer of Line Pipe Plain End at PSL 1: Type of Pipe: HFW / Delivery Condition: R, N, M / Highest Grade: X70; Manufacturer of Line Pipe Plain End at PSL 2: Type of Pipe: HFW / Delivery Condition: R, N, M / Highest Grade: X60; Processor of Line Pipe Plain End at PSL 1; Processor of Line Pipe Plain End at PSL 2**

QMS Exclusions: Section 7.3, Design and Development; Section 7.5.4, Customer Property

Effective Date: **SEPTEMBER 5, 2012**
Expiration Date: **SEPTEMBER 5, 2015**

To verify the authenticity of this license, go to www.api.org/compositelist.

American Petroleum Institute
John W. Madine
Director of Global Industry Services



SERTİFİKA

EN 10208-2
FABRİKA ÜRETİM KONTROL SERTİFİKASI
Yanıcı akışkanlar için boru hatları - Çelik borular
Teknik teslim şartları
Bölüm 2: Sınıf B özellikli borular

No : TA 295 12 1867

Bu sertifika, Teknik Komitenin ECISS/TC 29 "Steel Tubes and fittings for steel tubes" and Subcommittee SC 2 "Line Pipes" kararına göre hazırlanmıştır. İfade edildiği gibi,

Ürün : Kural olarak yanıcı akışkan ileten kaynaklı çelik borular için gereksinimler - yanıcı akışkan borulama uygulamaları dışında

Tip : Elektrik Direnç Kaynaklı - ERW Borular için EN 10208-2:2009 standardına göre:
Çelik Kalitesi : **L245NB, L290NB, L360NB, L415NB, L245MB, L290MB, L360MB, L415MB, L450MB, L485MB**
Boy : **4 to 14,6 m**
Dış Çap : **10,3 mm to 339,7 mm**
Et Kalınlığı : **0,6 to 13 mm**

Tanımlar : Basınçlı borular, Çelik, Boru, Dikili borular, Kaynak, Teslim, Alasız çelikler

Referans Standartlar : EN 473, EN ISO 5173, EN 1011-1 ve 2, EN ISO 6892-1, EN 10020, EN 10021, EN 10027-1, EN 10027-2, EN ISO 148-1, EN 10052, EN 10079, EN 10168, EN 10204, EN 10220, EN ISO 10893-2, EN ISO 10893-3, EN ISO 10893-10, EN ISO 10893-11, EN ISO 10893-6, EN ISO 10893-8, EN ISO 10893-9, EN 10256, EN 10266, EN 10274, EN ISO 377, EN ISO 2566-1, EN ISO 6506-1, EN ISO 6508-1, EN ISO 8492, EN ISO 14284, ISO 19232-1, CEN/TR 10261

Üretici : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi İskenderun / Hatay - TURKEY

Fabrika : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi Osmaniye - TURKEY

Üretici tarafından teslim edilen fabrika üretim kontrol ilk tip testlerini ve fabrika test planı doğrultusunda fabrikada numune alınarak yapılan ilave testlerini ve sertifikasyon kuruluşu olarak TÜV AUSTRIA'ın gerçekleştirdiği, fabrikanın birinci gözetimi ve onun fabrika üretim kontrolünü ve sürekli gözetim performansını ve fabrika üretim kontrolünü onaylar.

Standart : EN 10208-2:2009
Sertifikanın dayanağı : Final Report No : TSC-10208-12-01

Bu sertifika ilk kez 29 Temmuz 2012'de düzenlenmiştir. İmalatçı üretim ve kalite sisteminde veya çelik boruların kapsamında ciddi değişikliklere neticesinde her türlü faaliyet hakkında kuruluşu bildirmek zorundadır. Yayınlanmış sertifikanın koşullarına aykırı herhangi bir durum meydana geldiğinde, kuruluş sertifikanın geçerliliğini askıya alabilir veya sertifika iptal edilebilir.

Sertifikanın Geçerliliğinin Bittiği Tarih: 30 Temmuz 2014

TÜV AUSTRIA CERT GMBH ADINA

Hazırlayan: İsim: Mustafa Şirin
İmza: *Mustafa Şirin*

Onaylayan: İsim: Fatih Cihan Önder
İmza: *Fatih Cihan Önder*

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TÜV AUSTRIA CERT GMBH
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Wien-AUSTRIA www.tuv.at
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Quality-Assurance Systems for Pipe Manufacturer according to Directive 97/23/EC (Pressure Equipment)

Number: TA 295 12 1866

In compliance the directive 97/23/EC of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment, it has been stated that

The Construction Product : Welded steel tubes for pressure purposes. Technical delivery conditions. Non-alloy steel tubes with specified room temperature properties

Type : According to Standard for Electric Resistance Welded (ERW) Pipes :
EN 10217-1:2002
Steel Quality : **P195 TR1, P235 TR1, P265 TR1, P195 TR2, P235 TR2, P265 TR2, S235, S275, S355 Series**
Length : **4 to 14,6 m**
Outside diameter : **10,3 mm to 339,7 mm**
Wall Thickness : **0,6 to 13 mm**

Produced by Manufacturer : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi İskenderun / Hatay - TURKEY

in the Factory : TOSCELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi Osmaniye - TURKEY

is submitted by the manufacturer to the initial type-testing of the product a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the certification body TÜV Austria has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in the Annex ZA.

of the standard : EN 10217-1
Base of certificate : Final Report No : TSC-10217-12-01

This certificate was first issued on 30 July 2012. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included steel pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

Date/Place : **30 July 2012** Expiry Date: **29 July 2014**

ON BEHALF OF TÜV AUSTRIA CERT GMBH

Issued by: Name: Mustafa ŞİRİN
Sign: *Mustafa Şirin*

Validated by: Name: Fatih Cihan ÖNDER
Sign: *Fatih Cihan ÖNDER*

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EC Declaration of Conformity

We

TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Organize Sanayi Bölgesi Osmaniye - TURKEY
Tel: +90 328 826 80 80 Faks: +90 328 826 80 89
Web: www.tosvaliholding.com.tr

declare under sole responsibility that

Non-alloy Steel Tubes suitable for welding and threading, in conformity with

European Standard EN 10255:2004 + A1:2007

meet all requirements of EC Directive on Structural Products 89/106/EEC, amended by European Commonwealth Council Directive 93/68/EEC.

Tosçelik Profil ve Sac Endüstrisi A.Ş. has approved Quality Management System on screwed and socketed steel tubes and tubular and for plain end steel tubes production in accordance with EC Directive 89/106/EEC, amended by European Commonwealth Council Directive 93/68/EEC, on structural products with respect to steel products corresponding to Annex ZA of European Standard EN 10255:2004+A1:2007 (Essential Requirements specified in Table ZA.1 and Corresponded Clauses 8.7, 8.2 - Table 1, 8.4.3 to 8.4.6, 8.5, 8.6 and 7.4 of that standard).

Quality Assurance System and Factory Production Control of material manufacturer was verified and approved by the following European authorized and notified organisations for technical approvals;

Records on initial type testing of specified products are saved in Factory Production Control Archive of Manufacturer.

Certificate No : TAT-012 01 76, Date : 30 July 2012

Manufacturer
TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
(Authorized Signature and Title)

HAKAN ÖZDEMİR
Plant Manager
TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.

EU Representative
ON BEHALF OF TÜV AUSTRIA
(Authorized Signature and Title)

PATİH CIHAN ÖNDER
General Manager
TÜV AUSTRIA TURK LTD.

CERTIFICATE OF FACTORY PRODUCTION CONTROL
ACCORDING TO AWWA C210

No : TAT-012 01 588

The undersigned certifies that the described products meet the essential requirements of the below mentioned standards as based on AWWA C210 Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines and AWWA C210.

Product	: Liquid-Epoxy coating for the interior of steel pipes and fittings; requirements and testing
Type	: Liquid-Epoxy lined and/or coated electric resistance welded (ERW) pipes and fittings according to relevant standard : Length : 4 to 14,6 m Outside diameter : 60,3 mm to 339,7 mm Interior Lining and Coating Thickness : min 406 µm
Descriptions	: Pressure pipes, steels, pipes, seamed pipes, welding, delivery, unalloyed steels, liquid-epoxy, lining, coating
Reference Standards	: ASTM D3363, ASTM D4541, ASTM D4572, AWWA C203, AWWA C209, AWWA C214, AWWA C215, AWWA C216, AWWA C217, NACE RP0188, NACE No.1, NACE No.2, SSPC PA 2 and 3, SSPC SP1, SSPC SP5, SSPC SP10, SSPC VIS 1 1989
Manufacturer	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Iskenderun / Hatay - TURKEY
in the Factory	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Osmaniye - TURKEY

TÜV Austria, certifies by the manufacturer to the production and initial type-testing of the epoxy coated or lined pipes a factory production control and to the further lining or coating testing of samples taken at the factory in accordance with a prescribed test plan and that the certification body has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control in the above production ranges accordance with the requirements of AWWA C210.

of the standard : AWWA C210-08, AWWA Standard for Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines

Base of certificate : Final Report No : TOS-C210-2013-01

This certificate was first issued on 28 February 2013. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included epoxy coated or lined pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

The validity of Certificate is limited to: 27 February 2015

ON BEHALF OF TÜV AUSTRIA TURK

Issued by:
Name: Mustafa SIRIN
Sign:

Mustafa Sirin

Validated by:
Name: Fatih Cihan ÖNDER
Sign:

Fatih Cihan Önder

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"Dedal - Attestation and Certification" Ltd. Bulgaria

Notified body №1922

Parter, 50 block, j. k. "Mladost"
8230 Nesebar
Bulgaria

EC CERTIFICATE
of
Factory Production Control
1922 - CPD - 0182

In compliance with 'Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (89/106/EEC)' (the Construction Products Directive or CPD), as amended by Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction product

Hot finished structural hollow sections for steel structures of non-alloy steels-S235JRH, S275J0H, S275J2H, S355J0H, S355J2H, S355K2H, circular, square and rectangular forms, Thickness: 2.0 mm to 13.0 mm,

placed on the market by

TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.

Organize Sanayi Bölgesi, Toprakkale, OSMANİYE, TURKEY
and produced in the factory in
Organize Sanayi Bölgesi Toprakkale, OSMANİYE, TURKEY

is submitted by the manufacturer to the initial type-testing of the product, a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body No. 1922 - "Dedal - Attestation and Certification" Ltd. - has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in Annex ZA of the standard

EN 10210-1:2006

were applied.

This certificate was first issued on 27 March 2013 and remains valid as long as the conditions laid down in the harmonized technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly.

CE

Issued: Nesebar, 27 March 2013

Embossed stamp of "Dedal - AAC Ltd"

Manager: *Anna Vasileva*

Verification of validity of the issued certificates can be done in the register of certificates on www.dedal-bg.net

"Dedal - Attestation and Certification" Ltd. Bulgaria

Notified body №1922

Parter, 50 block, j. k. "Mladost"
8230 Nesebar
Bulgaria

EC CERTIFICATE
of
Factory Production Control
1922 - CPD - 0148

In compliance with 'Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (89/106/EEC)' (the Construction Products Directive or CPD), as amended by Directive 93/68/EEC of the Council of European Communities of 22 July 1993, it has been stated that the construction product

COLD FORMED WELDED STRUCTURAL HOLLOW SECTIONS OF NON-ALLOY AND FINE GRAIN STEELS-CIRCULAR, SQUARE AND RECTANGULAR FORMS,

placed on the market by

TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.

Organize Sanayi Bölgesi, Toprakkale, OSMANİYE, TURKEY
and produced in the factory in
Organize Sanayi Bölgesi Toprakkale, OSMANİYE, TURKEY

is submitted by the manufacturer to the initial type-testing of the product, a factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body No. 1922 - "Dedal - Attestation and Certification" Ltd. - has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control.

This certificate attests that all provisions concerning the attestation of factory production control described in Annex ZA of the standards

EN 10219-1:2006

were applied.

This certificate was first issued on 21.11.2012. and remains valid as long as the conditions laid down in the harmonized technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly. The certificate is supported through annual surveillance audits and is reissued after each surveillance audit. This certificate should be reissued not later than 21.11.2013.

CE

Issued: Nesebar, 21 November 2012

Embossed stamp of "Dedal - AAC Ltd"

Manager: *Anna Vasileva*

Verification of validity of the issued certificates can be done in the register of certificates on www.dedal-bg.net

CERTIFICATE OF FACTORY PRODUCTION CONTROL
ACCORDING TO AWWA C222

Number : TAT-012 01 586

The undersigned certifies that the described products meet the essential requirements of the below mentioned standards as based on AWWA C222 Polyurethane Coatings for the Interior & Exterior of Steel Water Pipe & Fittings.

Product	: Polyurethane coating for the interior of steel pipes and fittings; requirements and testing
Type	: Polyurethane coated electric resistance welded (ERW) pipes and fittings according to relevant standard : Length : 4 to 14,6 m Outside diameter : 60,3 mm to 339,7 mm Interior Coating Thickness : min 500 µm
Descriptions	: Pressure pipes, steels, pipes, seamed pipes, welding, delivery, unalloyed steels, polyurethane, coating
Reference Standards	: AWWA C203, AWWA C209, AWWA C210, AWWA C216, AWWA C217, ASTM D522, ASTM D543, ASTM D570, ASTM D2240, ASTM D2794, ASTM D4060, ASTM D4417, ASTM D4541, ASTM G95, NACE RP-0188, SSPC PA 1, SSPC PA 2, SSPC PA 3, SSPC SP 1, SSPC SP 10/NACE No.2, SSPC VIS 1 1989
Manufacturer	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Iskenderun / Hatay - TURKEY
in the Factory	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Osmaniye - TURKEY

TÜV AUSTRIA, certifies by the manufacturer to the production and initial type-testing of the polyurethane coated pipes a factory production control and to the further lining or coating testing of samples taken at the factory in accordance with a prescribed test plan and that the certification body has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control in the above production ranges accordance with the requirements of AWWA C222.

of the standard : AWWA C222-08, AWWA Standard for Polyurethane Coatings For The Interior & Exterior Of Steel Water Pipe & Fittings

Base of certificate : Final Report No : TOS-C222-01

This certificate was first issued on 28 February 2013. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included polyurethane coated or lined steel pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

The validity of Certificate is limited to: 27 February 2015

ON BEHALF OF TÜV AUSTRIA TURK

Issued by:
Name: Mustafa SIRIN
Sign:

Mustafa Sirin

Validated by:
Name: Fatih Cihan ÖNDER
Sign:

Fatih Cihan Önder

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CERTIFICATE OF FACTORY PRODUCTION CONTROL
ACCORDING TO DIN 30670

Number : TAT-012 01 587

The undersigned certifies that the described products meet the essential requirements of the below mentioned standards as based on DIN 30670 Polyethylene coatings of steel pipes and fittings - Requirements and testing.

Product	: Polyethylene coatings of steel pipes and fittings; requirements and testing
Type	: Polyethylene coated electric resistance welded (ERW) pipes and fittings according to relevant standard : Length : 4 to 14,6 m Outside diameter : 21,3 mm to 339,7 mm Coating Thickness : 1,8 mm to 3,7 mm
Descriptions	: Pressure pipes, steels, pipes, seamed pipes, welding, delivery, unalloyed steels, polyethylene, coating
Reference Standards	: DIN 2448, DIN 2458, DIN 30674 Part 1, DIN 50 049, DIN 53 387, DIN 53 455, DIN 53 735, DIN 55 928 Part 4, DIN VDE 0303 Part 3, DIN VDE 0433 Part 2, ASTM G 8-90
Manufacturer	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Iskenderun / Hatay - TURKEY
in the Factory	: TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş. Organize Sanayi Bölgesi Osmaniye - TURKEY

TÜV Austria certifies by the manufacturer to the production and initial type-testing of the polyethylene coated pipes a factory production control and to the further coating testing of samples taken at the factory in accordance with a prescribed test plan and that the certification body has performed the initial inspection of the factory and of the factory production control and performs the continuous surveillance, assessment and approval of the factory production control in the above production ranges accordance with the requirements of DIN 30670.

of the standard : DIN 30670:2012 Polyethylene coatings of steel pipes and fittings - Requirements and testing

Base of certificate : Final Report No : TOS-30670-2013-01

This certificate was first issued on 28 February 2013. The manufacturer must inform the body about any intention resulting in significant modification of production and quality system or scope of included polyethylene coated steel pipes. In the event that the conditions under which the Certificate has been issued are violated, the body may suspend the Certificate's validity or cancel the certificate.

The validity of Certificate is limited to: 27 February 2015

ON BEHALF OF TÜV AUSTRIA TURK

Issued by:
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CERTIFICATE



Management system as per
TS OHSAS 18001:2007

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that



TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Toprakkale Organize Sanayi Bölgesi
TR-80950 TOPRAKKALE / OSMANİYE

applies a management system in line with the above standard for the following scope

Manufacturing and sales of longitudinal welded steel pipes and profiles, cut to length and slitted coils.

Certificate Registration No. 20 116 121266361

Valid until 2015-08-14

Certification Body
at TÜV AUSTRIA CERT GMBH

Vienna, 2012-08-15

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV AUSTRIA CERT GMBH Krugerstraße 16 A-1015 Wien www.tuv.at



Verpflichtung zur Einhaltung des TS OHSAS 18001:2007. Die Einhaltung dieses Standards ist Gegenstand der regelmäßigen TÜV AUSTRIA

ZERTIFIKAT | CERTIFICATE | CERTIFICADO | CERTIFICAT | 証明書 | 證書



CERTIFICATE



Management system as per
TS EN ISO 9001:2008

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that



TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Toprakkale Organize Sanayi Bölgesi
TR-80950 TOPRAKKALE / OSMANİYE

applies a management system in line with the above standard for the following scope

Manufacturing and sales of longitudinal welded steel pipes and profiles, cut to length and slitted coils.

Certificate Registration No. 20 100 121266359

Valid until 2015-08-14

Certification Body
at TÜV AUSTRIA CERT GMBH

Vienna, 2012-08-15

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV AUSTRIA CERT GMBH Krugerstraße 16 A-1015 Wien www.tuv.at



Verpflichtung zur Einhaltung des TS EN ISO 9001:2008. Die Einhaltung dieses Standards ist Gegenstand der regelmäßigen TÜV AUSTRIA

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CERTIFICATE



Management system as per
TS EN ISO 14001:2004

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that



TOSÇELİK PROFİL VE SAC ENDÜSTRİSİ A.Ş.
Toprakkale Organize Sanayi Bölgesi
TR-80950 TOPRAKKALE / OSMANİYE

applies a management system in line with the above standard for the following scope

Manufacturing and sales of longitudinal welded steel pipes and profiles, cut to length and slitted coils.

Certificate Registration No. 20 104 121266360

Valid until 2015-08-14

Certification Body
at TÜV AUSTRIA CERT GMBH

Vienna, 2012-08-15

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.
TÜV AUSTRIA CERT GMBH Krugerstraße 16 A-1015 Wien www.tuv.at



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