



# PREPAINTED STEEL

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 TATÇELİK

 TATMETAL



As your closest manufacturer,  
we manufacture flat steel fully in line  
with your needs, and shape the future  
together with you.

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# TATMETAL, TURKEY'S LEADING MANUFACTURER OF FLAT STEEL

## Export to More than 60 Countries in 6 Continents

Tatmetal produces hot rolled pickled, cold rolled, galvanized and painted flat steel under Tatçelik brand as one of Turkey's leading flat steel producer. Automotive, Durable Goods, Construction, Energy and Machinery-Equipment are the leading industries it serves.

With a capacity exceeding 1.5 million tons, Tatmetal produces in many different steel grades such as commercial, deep drawing, extra deep drawing steels, low alloy high strength HSLA steels, medium and high strength structural steels and enameling steel.

In addition to its production, it performs cut to length, slitting, roll forming processes in the Steel Service Centers in line with the demands and needs of the user.

As a global player in the sector, it exports to more than 60 countries in 6 continents and it is ranked at 74st among the first 500 largest industrial companies in Turkey.

1.1 CAPACITY



Steel Production Complex with **177.000 m<sup>2</sup>** area

Production capacity exceeding **1.5 million tons**



### Automotive

- Automobile
- Commercial Vehicle
- Agricultural Vehicle
- Rail Transport



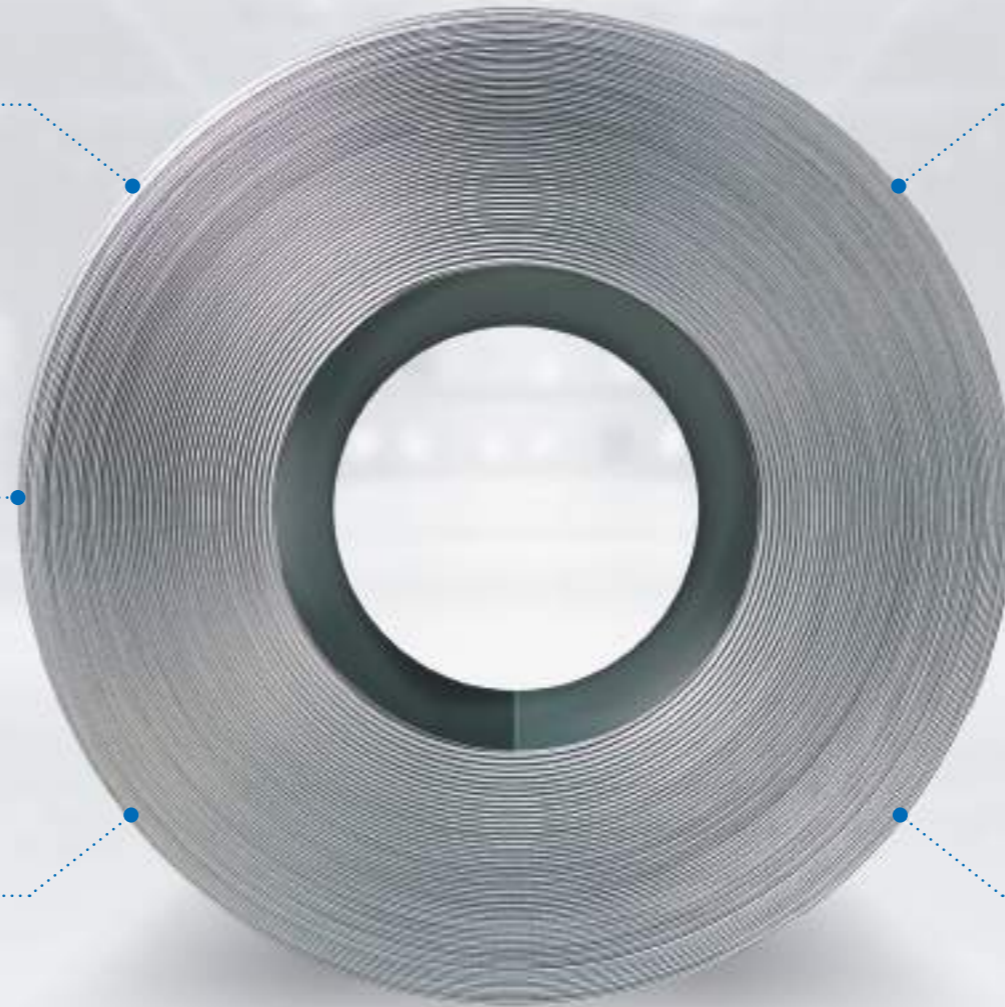
### Durable Consumption

- White Goods
- Small Appliances
- Brown Goods



### Machine Equipment

- Sheet Metal Processing Machinery
- Miscellaneous Agricultural, Forestry, Mining and Food Industry Machinery
- Heavy Equipment
- Crane and Work Tools



- Roof and Facade Systems
- Pipe & Profile
- Busbar
- Heating and Cooling, Air Conditioning Systems

### Construction

- Ceiling and Floor Systems
- Greenhouse Cultivation
- Storage and Shelving Systems



### Energy

- Transformer - Power Systems
- Solar Energy



### Packaging

- Steel Drum
- Packaging (Steel Strap and seals)
- Storage Tank



Low Cost & Easy Supply



High Strength



Formability



Recycling Opportunity



Weldability



High Corrosion Resistance



Paintability

# PREPAINTED STEEL

Prepainted Steel is obtained by painting zinc coated steel products produced as hot dip galvanized sheet. The products are painted on the continuous color coating line to the colors in the RAL K7 catalog or to the specific colors created in accordance with the demand, different paint types and thickness applications are made. Zinc-coated steel becomes extremely resistant to atmospheric corrosion with the application of primer and top coat on the surface.



**200,000 Tons / year**  
production capacity

## Advantages of Prepainted Galvanized Steel



Cost Advantage



High Strength



Formability



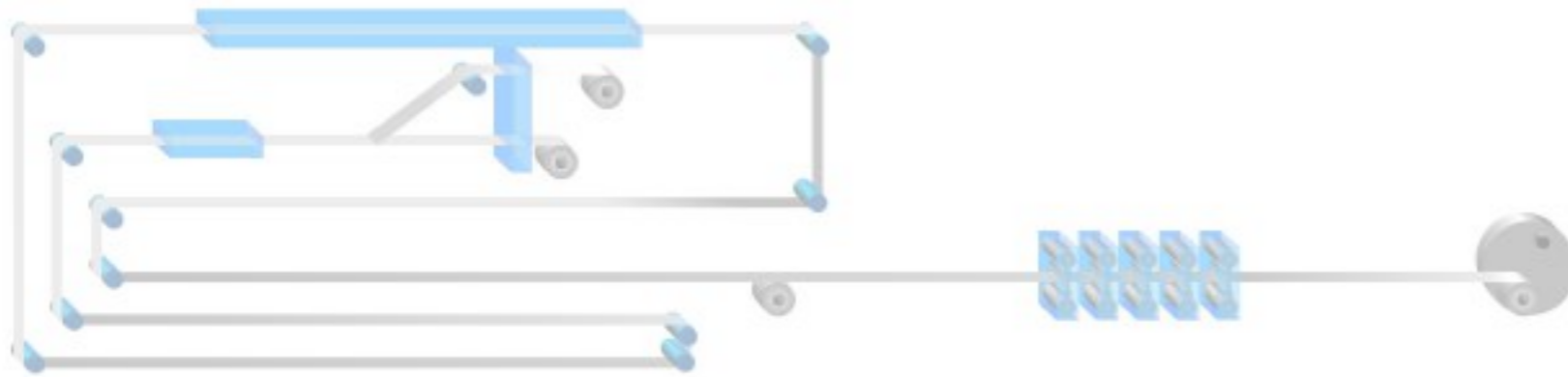
Recycling Opportunity



Corrosion Resistance

## 2.1 PRODUCTION PROCESS

PLTCM (Pickling Line Tandem Cold Mill)



CRFH



Alcaline Cleaning Line - Annealing Line - Temper Mill



CR



Continuous Galvanizing Line



GI



Color Coating Line



PPGI







### Paint Type

SP	Polyester
HDP	High Strength Polyester
WP	Wrinkle-Patterned Polyester
PUR-PA	Polyurethane-Polyamide
PVDF	Polyvinyl Fluoride
PVC (P)	Plastisol

### Areas of Usage

Single layer corrugated sheets, Sandwich panel, Composite panel, Garage door in the building sector and Visible exterior surfaces in White goods.

### Coating

PET (F)	PET Film Coating
PVC (F)	PVC Film Coating

### Protective Film

Film Thickness 35 - 100 micron

### Paint Color

RAL catalog or special customer demands

### Brightness Type

Matte, Low Bright, Semi-Bright, Bright, High Bright

Coating Material	Colour Coating Thickness Min. (µm)	Colour Coating Thickness Max. (µm)	Layer
Polyester (SP)	15	50	Top Coat
Wrinkle (WP)	15	30	Top Coat
Pvdf	15	50	Top Coat
Purpa	15	30	Top Coat
Plastisol PVC (F)	100	200	Top Coat
Epoxy	5	10	Back Coat
Epoxy Polyester	5	10	Back Coat



	Product Group	TATCELİK Grades	Standard Grades	Standard	Similar Standards				
					ASTM Standard	EN Standard	JIS Standard	AS/NZS Standard	
Painted Products	Continuously Hot Dip Zinc Coated Low Carbon Steel for Cold Forming	BGR	DX51D+Z	DX51D+Z	EN 10346:2015	CS Type C	-	SGCC	G1-G2
		BGR	DX52D+Z	DX52D+Z	EN 10346:2015	CS Type B	-	SGCD1	G2
	Continuously Hot Dip Zinc Coated Low/Ultra Low Carbon Steel for Cold Forming	BGR	DX53D+Z	DX53D+Z	EN 10346:2015	FS Type B	-	SGCD2	G3
		BGR	DX54D+Z	DX54D+Z	EN 10346:2015	DDS Type A	-	SGCD3	-
	Continuously Hot Dip Zinc Coated Low Carbon Steel for Cold Forming	GZR	CS Type C (1)	CS Type C	ASTM A653M:2015	CS Type C	DX51D+Z	SGCC	G1-G2
		GZR	CS Type B (1)	CS Type B	ASTM A653M:2015	CS Type B	DX52D+Z	SGCD1	G2
	Continuously Hot Dip Zinc Coated Ultra Low Carbon Steel for Cold Forming	GZR	FS Type B (1)	FS Type B	ASTM A653M:2015	FS Type B	DX53D+Z	SGCD2	G3
		GZR	DDS Type A (1)	DDS Type A	ASTM A653M:2015	DDS Type A	DX54D+Z	SGCD3	-
	Continuously Hot Dip Zinc Coated Structural Steels	BGR	S220GD+Z	S220GD+Z	EN 10346:2015	SS Gr. 230	-	SGCC	-
		BGR	S250GD+Z	S250GD+Z	EN 10346:2015	SS Gr. 255	-	SGC340	G250
		BGR	S280GD+Z	S280GD+Z	EN 10346:2015	SS Gr. 275	-	SGC400	-
		BGR	S320GD+Z	S320GD+Z	EN 10346:2015	ASTM A53 HSLAS Gr. 340	-	SGC440	G300
		BGR	S350GD+Z	S350GD+Z	EN 10346:2015	SS Gr. 340	-	SGC490	G350
	Continuously Hot Dip Zinc Coated Structural Steels	BGR	SSGRADE33 (1)	SS Gr. 230	ASTM A653M:2015	-	S220GD+Z	SGCC	-
BGR		SSGRADE50 (1)	SS Gr. 340	ASTM A653M:2015	-	S350GD+Z	SGC490	G350	

1 - All grades which is nearest EN standards shall be subject to negotiation at the time of enquiry and order.

2 - Issues and/or tolerances not mentioned here to be agreed at the time of enquiry and order.

3 - Under development.

Product Group	Min. Thickness	Max Thickness	Min. Width	Max Width	Coating Mass	Color Type	Paint Color	Paint Thickness µm	Gloss Type	Inner Diameter
Boyalı	0,33	1,20	800	1265	60/275	Polyester Wrinkle Pvdf Purpa Plastisol Epoxy Epoxy Polyester	RAL K7 Color Catalogue	200 max.	Matt Low Gloss Semi Gloss Gloss High Gloss	508/610

Order Thickness (mm)	Order Width (mm)								Order Thickness (mm)
	700	800	900	1000	1100	1200	1265	1300	
1.30									1.30
1.20		•	•	•	•	•	•	•	1.20
1.10		•	•	•	•	•	•	•	1.10
1.00		•	•	•	•	•	•	•	1.00
0.90		•	•	•	•	•	•	•	0.90
0.80		•	•	•	•	•	•	•	0.80
0.70		•	•	•	•	•	•	•	0.70
0.60		•	•	•	•	•	•	•	0.60
0.55		•	•	•	•	•	•	•	0.55
0.50		•	•	•	•	•	•	•	0.50
0.45		•	•	•	•	•	•	•	0.45
0.40		•	•	•	•	•	•	•	0.40
0.33		•	•	•	•	•	•	•	0.33
0.25									0.25
	700	800	900	1000	1100	1200	1265	1300	

## 2.5 MECHANICAL AND CHEMICAL PROPERTIES

### Continuously Hot Dip Zinc Coated Low Carbon Steel for Cold Forming

Chemical Composition (%)								
TATCELİK Grade	Grade	Standard	C (max.)	Mn (max.)	P (max.)	S (max.)	Si (max.)	Ti (max.)
DX51D+Z	DX51D+Z	EN 10346:2015	0,18	1,20	0,12	0,045	0,50	0,30
DX52D+Z	DX52D+Z	EN 10346:2015	0,12	0,60	0,10	0,045	0,50	0,30

Mechanical Properties					
TATCELİK Grade	Grade	Standard	Re N/mm <sup>2</sup> (max.)	Rm N/mm <sup>2</sup>	A (%) A80 (min.)
DX51D+Z	DX51D+Z	EN 10346:2015	-	270-500	22
DX52D+Z	DX52D+Z	EN 10346:2015	140-300	270-420	26

### Continuously Hot Dip Zinc Coated Low/Ultra Low Carbon Steel for Cold Forming

Chemical Composition (%)								
TATCELİK Grade	Grade	Standard	C (max.)	Mn (max.)	P (max.)	S (max.)	Si (max.)	Ti (max.)
DX53D+Z	DX53D+Z	EN 10346:2015	0,12	0,60	0,10	0,045	0,50	0,30
DX54D+Z	DX54D+Z	EN 10346:2015	0,12	0,60	0,10	0,045	0,50	0,30

Mechanical Properties							
TATCELİK Grade	Grade	Standard	Re N/mm <sup>2</sup> (max.)	Rm N/mm <sup>2</sup>	A (%) A80 (min.)	r90 (min.)	n90 (min.)
DX53D+Z	DX53D+Z	EN 10346:2015	140-260	270-380	30	-	-
DX54D+Z	DX54D+Z	EN 10346:2015	120-220	260-350	36	1,60	0,18

### Continuously Hot Dip Zinc Coated Structural Steels

Kimyasal Bileşim (%)								
TATCELİK Grade	Grade	Standard	C (max.)	Mn (max.)	P (max.)	S (max.)	Si (max.)	Ti (max.)
S220GD+Z	S220GD+Z	EN 10346:2015	0,20	1,70	0,10	0,045	0,60	-
S250GD+Z	S250GD+Z	EN 10346:2015	0,20	1,70	0,10	0,045	0,60	-
S280GD+Z	S280GD+Z	EN 10346:2015	0,20	1,70	0,10	0,045	0,60	-
S320GD+Z	S320GD+Z	EN 10346:2015	0,20	1,70	0,10	0,045	0,60	-
S350GD+Z	S350GD+Z	EN 10346:2015	0,20	1,70	0,10	0,045	0,60	-

Mekanik Özellikler					
TATCELİK Grade	Grade	Standard	Re N/mm <sup>2</sup> (min.)	Rm N/mm <sup>2</sup> (min.)	A (%) A80 (min.)
S220GD+Z	S220GD+Z	EN 10346:2015	220	300	20
S250GD+Z	S250GD+Z	EN 10346:2015	250	330	19
S280GD+Z	S280GD+Z	EN 10346:2015	280	360	18
S320GD+Z	S320GD+Z	EN 10346:2015	320	390	17
S350GD+Z	S350GD+Z	EN 10346:2015	350	420	16

### Continuously Hot Dip Zinc Coated Low Carbon Steel for Cold Forming

Chemical Composition (%)														
TATCELİK Grade	Grade	Standard	C (max.)	Mn (max.)	P (max.)	S (max.)	Si (max.)	Cu (max.)	Ni (max.)	Cr (max.)	Mo (max.)	V (max.)	Nb (max.)	Ti (max.)
CS Type B	CS Type B	ASTM A653M:2015	0,02-0,15	0,60	0,03	0,035	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025
CS Type C	CS Type C	ASTM A653M:2015	0,08	0,60	0,10	0,035	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025
FS Type B	FS Type B	ASTM A653M:2015	0,02-0,10	0,50	0,02	0,03	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025
DDS Type A	DDS Type A	ASTM A653M:2015	0,06	0,50	0,02	0,025	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025

Mechanical Properties					
TATCELİK Grade	Grade	Standard	Re N/mm <sup>2</sup> (min.)	Rm N/mm <sup>2</sup> (min.)	A (%) A50 (min.)
CS Type B	CS Type B	ASTM A653M:2015	205-380	-	20
CS Type C	CS Type C	ASTM A653M:2015	170-410	-	15
FS Type B	FS Type B	ASTM A653M:2015	170-310	-	26
DDS Type A	DDS Type A	ASTM A653M:2015	140-240	-	32

### Continuously Hot Dip Zinc Coated Structural Steels

Chemical Composition (%)														
TATCELİK Grade	Grade	Standard	C (max.)	Mn (max.)	P (max.)	S (max.)	Si (max.)	Cu (max.)	Ni (max.)	Cr (max.)	Mo (max.)	V (max.)	Nb (max.)	Ti (max.)
SSGRADE33	SS Gr. 230	ASTM A653M:2015	0,20	1,35	0,10	0,04	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025
SSGRADE50	SS Gr. 340	ASTM A653M:2015	0,25	1,35	0,20	0,04	-	0,25	0,20	0,15	0,06	0,008	0,008	0,025

Mechanical Properties					
TATCELİK Grade	Grade	Standard	Re N/mm <sup>2</sup> (min.)	Rm N/mm <sup>2</sup> (min.)	A (%) A50 (min.)
SSGRADE33	SS Gr. 230	ASTM A653M:2015	230	310	20
SSGRADE50	SS Gr. 340	ASTM A653M:2015	340	450	12

## QUALITY CONTROL | 2.6

### Laboratory Tests

- ✓ Coverage
- ✓ Viscosity
- ✓ Density
- ✓ Alkaline Bath Analysis
- ✓ Cr free Analysis
- ✓ 60° Gloss Test
- ✓ Colour Difference Test
- ✓ Dry Film Thickness Test
- ✓ Mek Rubbing Test
- ✓ T-Bend Test
- ✓ Cupping Test
- ✓ Reverse Impact Test

### Colour Coating Line Tests

- ✓ 60° Gloss Test
- ✓ Colour Difference Test
- ✓ Dry Film Thickness Test
- ✓ Mek Rubbing Test
- ✓ T-Bend Test
- ✓ Cupping Test
- ✓ Reverse Impact Test

# STEEL SERVICE CENTERS



3.1

## CUT TO LENGTH SHEET

Cut to Length production range for cold rolled coil, galvanized coil and prepainted coil;

**Thickness** : 0.30 - 6.00 mm  
**Width** : 350 - 1600 mm  
**Length** : 500 - 6000 mm

**Packaging** : It is packed on pallets with paper or steel packaging.



3.2

## SLITTED STRIPS

Slitted Strips production range for cold rolled coil, galvanized coil, prepainted galvanized steel coil;

**Thickness** : 0,30 - 4,00 mm  
**Width** : 20 - 1600 mm

**Packaging** : Slitted steel coils are packed vertically or horizontally, with or without pallets.

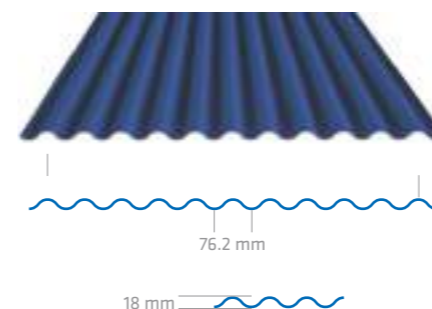


3.3

## ROLL FORMED PREPAINTED AND GALVANIZED STEEL SHEET

### Corrugated Steel Sheet

**Thickness** : 0,25-0,80 mm  
**Width** : 875 mm Maks.  
**Length** : 6000 mm  
**Form** : 18 / 76,2



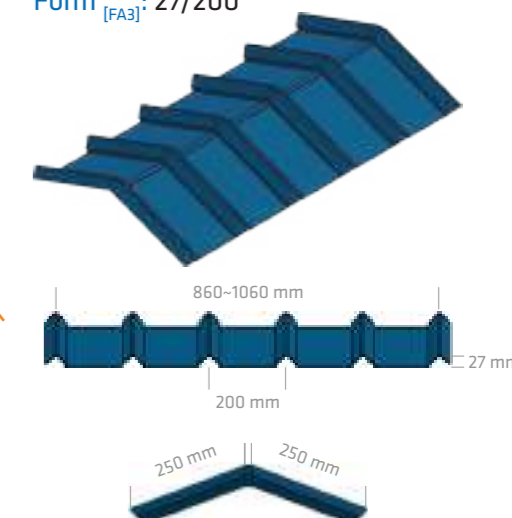
### Trapezoidal Steel Sheet

**Thickness** : 0,25-1,20 mm  
**Width** : 860 mm ve 1060 mm  
**Length** : 500mm – 12.000 mm  
**Form** : 27 / 200



### Ridge Steel

**Width** : 860 mm veya 1060 mm  
**Length** : 500 mm (250-250) - 3000 mm (1500+1500)  
**Form** <sub>[FA3]</sub> : 27/200



In addition to its production, Tatçelik performs cut to length, slitting in the Steel Service Centers.

## **TATMETAL ÇELİK SANAYİ VE TİCARET A.Ş.**

Tax Administration : Büyük Mükellefler Vergi Dairesi  
Tax No : 831 044 0672  
Billing Address : Hamzafakıhlı Mah. Ebetaşı Sok. No:1 Ereğli / Zonguldak



### **Headquarters**

Adress : Küçükbakkalköy Mah. Merdivenköy Yolu Cad. Rüya Sok. No: 12 Kat: 20  
Vogue Business Center PK: 34750 Ataşehir/ İstanbul  
Phone : +90 216 574 08 28



### **Ereğli Office**

Adress : Hamzafakıhlı Mah. Ebetaşı Sok. No:1 Ereğli / Zonguldak



### **Bursa Office**

Adress : Konak Mahallesi Barış Sokak Ofis Artı İş Merkezi, No:3 Kat:6 D:31 Nilüfer Bursa  
Telefon : +90 224 249 03 63



### **Steel Service Center - 1**

Adress : Bölücek Mah. 2 Numaralı Sanayi Sok. No: 32 Ereğli/ Zonguldak  
Phone : +90 372 318 00 27 / 29



### **Steel Service Center - 2**

Adress : Hamza Fakıhlı Köyü Girişi Ereğli/ Zonguldak  
Telefon : +90 372 334 35 85



### **Cold Rolling, Galvanizing and Color Coating Plant**

Adress : Hamzafakıhlı Mah. Organize Sanayi Bölgesi 2 NOLU Yol Sok. No:1 Ereğli / Zonguldak  
Phone : +90 372 334 37 30

### **E-mail Addresses**

Domestic Sales : satis@tatmetal.com.tr  
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[www.tatmetal.com.tr](http://www.tatmetal.com.tr)