

ISD DUNAFERR PRODUCT CATALOGUE

HOT-DIP GALVANIZED PRODUCTS

PRODUCT GROUPS

1. CONTINUOUS HOT-DIP GALVANIZED STEEL COILS AND SHEETS

Applied standards and references

MSZ EN 10346:2009 low carbon steel for cold-forming

Steel grade	Yield point, (R _e), N/mm ²	Tensile strength, (R _m), N/mm ²	Failure strain, (A ₈₀), %, min.
DX51D	—	270–500	22**
DX52D	140–300*	270–420	26**

* This value is valid only for skin-pass rolled products (B and C surface qualities)

** In case of thickness 0.7 mm and below the value shall be reduced by 2 units and in case of thickness 0.5 mm and below the value shall be reduced by further 2 units.

MSZ EN 10346:2009 structural steel

Steel grade	Yield point (R _e) N/mm ² min.	Tensile strength (R _m) N/mm ² min.	Failure strain, (A ₈₀) min. % sheet thickness, mm	
			> 0.70	<= 0.70
S220GD	220	300	20	18
S250GD	250	330	19	17
S280GD	280	360	18	16
S320GD	320	390	17	15
S350GD	350	420	16	14

Product range

Producible dimensions

Dimensions	Wide strip	Sheet
Thickness, mm	0.35–1.50	0.35–1.50
Width, mm	800–1500	800–1500
Length, mm	—	1400–3000
Coil or bundle mass, kg	3000–15 000	2000–3500
Inside diameter, mm	508 or 610*	—

* It can be ordered only on the basis of a separate agreement.

Dimensional standard: MSZ EN 10143:2006

Dimensional and geometrical tolerances refer to both wide strip and sheet.

Examples for designation:

Example 1: Sheet MSZ EN 10143–0.80×1200×2500 MSZ EN 10346–DX52D+Z150–N–A–C

Example 2: Strip MSZ EN 10143–0.63×1200 MSZ EN 10346–S280GD+Z275–N–A–C

Product name	Sheet	Strip
dimensional standard	MSZ EN 10143	MSZ EN 10143
thickness	0.80	0.63
width	1200	1200
length	2500	—
steel grade standard	MSZ EN 10346	MSZ EN 10346
steel grade	DX52D	S280GD
zinc-coating mark	+Z150	+Z275
coating version	N	N
surface quality	A	A
surface treatment	C	C

Coating

Coating mark Z	Coating mass (on two sides min. g/m ²)	Coating thickness (μm) (on one side) *	Coating version N	Surface quality A	Surface treatment C **
	Average of three specimens		normal zinc flower	usual surface	chemical passivation
275	275	20			
200	200	15			
150	150	10			
100***	100	7			

* Referential data

** It can be delivered without chemical passivation too, but the risk is taken by the customer

*** In case of thickness below 0.4 mm the coating thickness min. 150 g/m²

Other technical data

Specific weight per running meter in case of 275 g/m² coating

Nominal strip width, mm	Nominal thickness, mm		
	1000	1250	1500
	Specific mass, kg/m *		
0.35	2.79	—	—
0.40	3.18	4.42	—
0.50	3.97	4.91	—
0.55	4.36	5.40	—
0.60	4.75	5.94	—
0.70	5.54	6.92	8.32
0.75	5.93	7.42	9.90
0.80	6.32	7.91	9.49
0.90	7.11	8.89	10.66
1.00	7.90	9.87	11.84
1.10	8.68	10.85	13.02
1.20	9.47	11.83	14.20
1.30	10.25	12.82	15.38
1.40	11.04	13.80	16.56
1.50	11.82	14.78	17.73

* Referential data

Outside coil diameter depending on coil mass

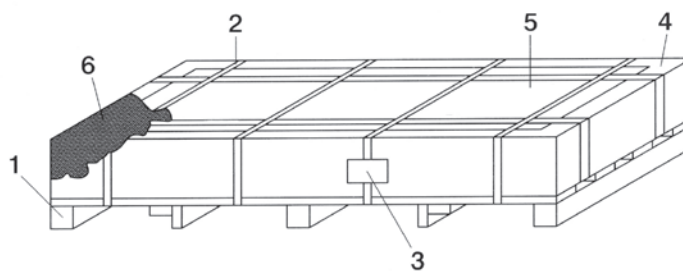
Coil mass, t	Producible outside coil diameter *, mm, in the case of 508 mm inside diameter, if the strip width is nominal, mm				
	800	1000	1100	1250	1500
2.5	874	814	791	763	727
3.0	931	863	837	804	763
3.5	983	908	880	844	798
4.0	1034	952	921	881	831
4.5	1082	994	960	917	863
5.0	1127	1034	997	952	893
5.5	1171	1072	1034	985	923
6.0	1214	1109	1069	1018	952
6.5	1255	1145	1103	1049	980
7.0	1295	1180	1136	1080	1007
7.5	1333	1214	1168	1109	1034
8.0	1371	1247	1199	1138	1059
8.5	1407	1279	1229	1166	1085
9.0	1443	1310	1260	1190	1109
9.5	1477	1341	1288	1221	1133
10.0	1511	1371	1316	1247	1157
10.5	1544	1400	1344	1273	1180
11.0	1577	1429	1371	1298	1203
11.5	1609	1457	1397	1323	1225
12.0	—	1484	1423	1347	1247
12.5	—	1511	1449	1371	1268
13.0	—	1538	1474	1394	1289
13.5	—	1565	1499	1417	1310
14.0	—	1590	1523	1440	1331
14.5	—	1615	1547	1462	1351
15.0	—	—	1571	1484	1371

* Referential data

Packaging

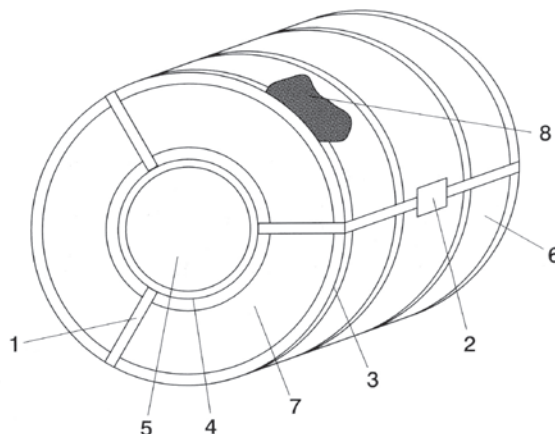
Sheet Packaging

Packaging material	Type		
	2	3	
1	Wooden pallet	X	X
2	Banding strap	X	X
3	Label	X	X
4	Edge protector	—	X
5	Covering sheet	—	X
6	Impregnated paper	X	X



Coil Packaging

Packaging material	Type			
	1	2	3	
1	Banding strap	X	X	X
2	Label	X	X	X
3	Outer edge protector	—	X	X
4	Inner edge protector	X	X	X
5	Inner mantle protector	—	—	X
6	Outer mantle protector	—	—	X
7	Side protector	—	—	X
8	Impregnated paper	X	X	X



If the means of transport is not suitable for coil transport, then we provide the coils bundled on crate on the basis of a separate agreement.

2. CONSTRUCTION INDUSTRY PRODUCTS

General terms

We manufacture construction industry products by roller-type forming of hot-dip galvanized strips produced by us, as well as of different organic-coated steel strips. The construction industry elements in our supply can be applied excellently at new constructions and at modernization of old buildings.

Base material

In lack of other agreement, the used steel grade is S280GD for all types, according to MSZ EN 10147.

Coating

Z275 N-A-C	for types	galvanized TR	for outdoor application
Z275 + organic-coating	for types	organic-coated TR	for outdoor application

TR: trapezoid sheet

Documentation

Our products are marketed on the basis of the specifications of the effective construction industry law, and are documented accordingly.

The following are provided for the freight:

- Test certificate according to MSZ EN 10204,
- Conformity declaration of the producer,
- Construction Industry Technical Licence.
- Production plant proposals for transportation, storing and utilisation

Guarantee

Guarantee is according to the regulations of the building law.

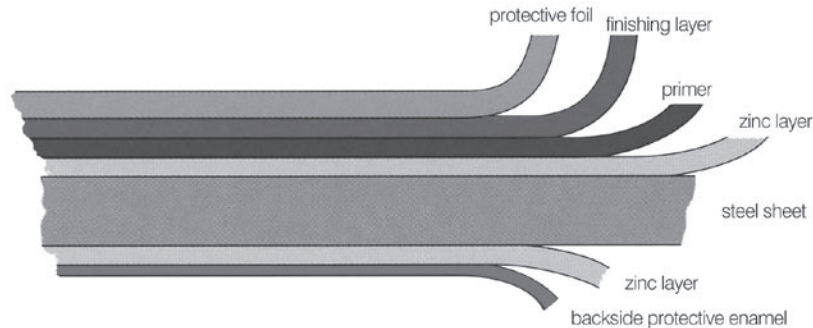
Organic-coated products

General characteristics

Organic coatings according to MSZ EN 10169-1 are recommended for outdoor and indoor applications with different loads.

Composition of our most frequently sold organic-coated products

One or more layers of organic-coating (enamel) of different quality and thickness on hot-dip galvanized (Z275, Z150) steel sheet, with or without strippable protective foil.



The face and back sides of the products are usually of different construction (organic-coating, layer-thickness). Colour choice according to RAL colour register: RAL 1002, 1015, 3000, 3009, 5010, 5012, 6011, 7022, 8014, 9002, 9006, 9010.

Order data, designation

Selection of the organic-coated base material is the task of the customer on the basis of designer specifications and in agreement with ISD Dunafer Zrt.

When choosing the material, among others, utilization and place (outdoor, indoor) of application, environmental conditions and loads have to be taken into consideration.

The characteristics of the required coating (colour, coating type, layer thickness) have to be given for both sheet surfaces.

Example:

Trapezoid sheet TR 35/207-5 0.63 steel MSZ EN 10346-S280GD+Z275 coating MSZ EN 10169-SP25/SP10 RAL 9002

Product name	Trapezoid sheet
Type	TR 35/207-5
Sheet thickness	0.63
Steel grade standard	MSZ EN 10326
Steel grade mark	S280GD
Zinc coating symbol and coating mass	+Z275
Organic coating standard	MSZ EN 10169
Face side coating symbol and layer-thickness (μm)	SP25
Back side coating symbol and layer-thickness (μm)	SP10
Colour	RAL 9002

Choice of organic coatings, characteristics, application

Normal coatings

Informative characteristic data (not complete)	Polyester (SP)	Polyvinyl-chloride plastisol (PVC/P)	Polyvinylidene-fluoride (PVDF)
Normal coating thickness, μm	25	100, 200	25
Brightness, %	35	50	35
Heat resistance, $^{\circ}\text{C}$	80	60	110
UV resistance *	good	good	very good
Outdoor application			
Rural, fresh air	suitable	suitable	suitable
Industrial, normal	suitable with restrictions	suitable	suitable
Town, polluted	—	suitable with restrictions	suitable with restrictions
Sea	—	suitable	suitable with restrictions
Special	—	suitable with restrictions	suitable with restrictions
Indoor application			
Fresh and dry	suitable	suitable	suitable
Wet	suitable with restrictions	suitable	suitable
Aggressive	—	suitable with restrictions	suitable with restrictions

* Can be ordered only on the basis of a separate agreement

Other coatings can also be ordered with a separate agreement and conditions.

Product range

Type mark-channel number	Nominal thickness, mm (normal)					
	Galvanized organic-coated					
	0.50	0.63	0.75	0.88	1.00	1.20
HTR 35/207	X	X	X	X	X	
TR 35/207-4	X	X	X	X	X	
TR 35/207-5	X	X	X	X*	X*	
TR 40/183-4	X*	X	X	X	X	
TR 40/183-5	X*	X	X	X*	X*	
TR 135/310-2	—	—	X	X	X	X
TR 135/310-3	—	—	X	X	X	X

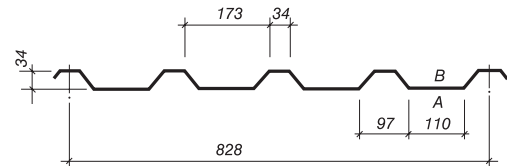
* Can be ordered only on the basis of a separate agreement



Construction industry products for roof and sidewall cladding

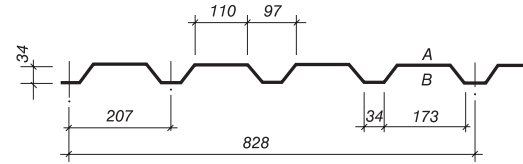
■ HTR 35/207

Thickness: 0.50–1.00 mm
 Assembly width: 828 mm
 Min. length: 400 mm
 Max. length: 14 000 mm



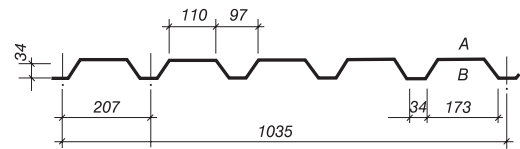
■ TR 35/207-4

Thickness: 0.50–1.00 mm
 Assembly width: 828 mm
 Min. length: 400 mm
 Max. length: 14 000 mm



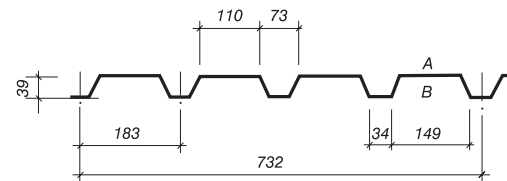
■ TR 35/207-5

Thickness: 0.50–1.00 mm
 Assembly width: 1035 mm
 Min. length: 400 mm
 Max. length: 14 000 mm



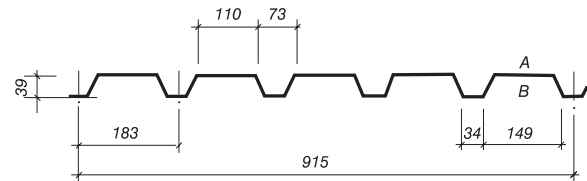
■ TR 40/183-4

Thickness: 0.63–1.00 mm
 Assembly width: 732 mm
 Min. length: 1900 mm
 Max. length: 14 000 mm



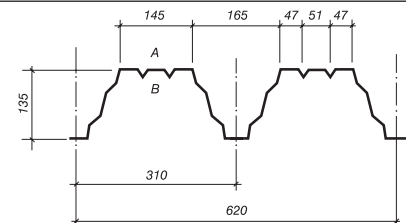
■ TR 40/183-5

Thickness: 0.63–1.00 mm
 Assembly width: 915 mm
 Min. length: 1900 mm
 Max. length: 14 000 mm



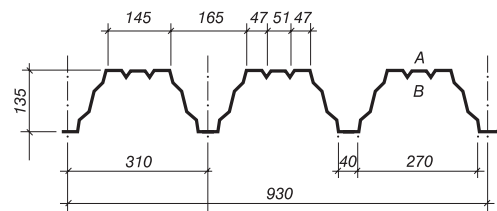
■ TR 135/310-2

Thickness: 0.75–1.20 mm
 Assembly width: 620 mm
 Min. length: 1000 mm
 Max. length: 14 000 mm



■ TR 135/310-3

Thickness: 0.75–1.20 mm
 Assembly width: 930 mm
 Min. length: 1000 mm
 Max. length: 14 000 mm



Profiles TR 40/183-4, TR 135/310-2 and TR 135/310-3 can be applied also as permanent formwork and in self-supporting execution.

Dimensional and geometrical tolerances of the building products are according to RAL-GZ 617.

Colour choice of the organic-coated products is according to colour register RAL 840-HR: RAL 1002, 1015, 3000, 3009, 5010, 5012, 6011, 7022, 8014, 9002, 9006, 9010.

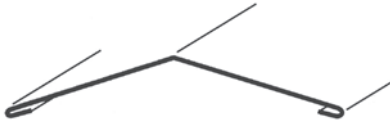
3. BENT-OFF ELEMENTS

The figures below show the most commonly produced bent-off elements. We also undertake also the manufacturing of bent-off elements with other dimensions and forms than these on the basis of a prior agreement.

Base material: galvanized and organic-coated steel sheet

■ Ridge elements

Length: max. 6000 mm
Thickness: 0.50–1.00 mm



■ Weather bars, cornice plates

Length: max. 6000 mm
Thickness: 0.50–1.00 mm



■ External and internal corner covering elements

Length: max. 6000 mm
Thickness: 0.50–1.00 mm



■ Z beams

Length: max. 6000 mm
Thickness: 0.75–1.25 mm



■ Wall covering elements

Length: max. 6000 mm
Thickness: 0.50–0.75 mm



■ Rain gutters

Length: max. 6000 mm
Thickness: 0.50–1.00 mm



The developed width of the bent-off sheets — according to customer requirement — can vary on the basis of a separate agreement.

4. CONNECTING ELEMENTS AND AUXILIARIES



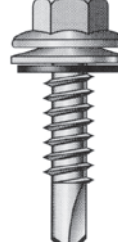



Fixing elements

The fixing elements can be used in the case of both wooden and metal purlins.

Both roof profiles (B side) and sidewall profiles (A side) are fixed in the channel valley. Bearing solution can also be chosen for fixing.

According to practical experience, about 6 pcs/m² fixing elements already provide fixing with the required safety.

Most often used EJOT bolt types:

Denomination	Ø×Length mm×mm	Denomination	Ø×Length mm×mm	Denomination	Ø×Length mm×mm
	JT 2 -2H -4.8×16 -4.8×19		JT 2 -3 -4.8×16 4.8×19 4.8×22 4.8×25 4.8×32 4.8×38		JT 2 -6 -4.8×19 4.8×22 4.8×25
	J2 SW 8		J2 SW 8		J2 SW 8
Ordering example		Ordering example		Ordering example	
JT 2 -2H - 4.8 · 16 - V14		JT 2 - 3 - 4.8 · 16 - V14		JT 2 - 6 - 5.5 · 19 - V16	

Watertight sealing of the self-tapping bolts (V14) prevent moisture (steam, rainwater, slush, etc.) from infiltrating at the place of fixing.

Tapes

Tapes are used for the longitudinal and transversal splicing of trapezoid sheets and bent-off elements, their usage needed in the case of slope angles below 15°.

Neoprene:

Single-sided adhesive surface, compressible. Suitable also for the elimination of heat-bridges.

Terrostate:

Double-sided adhesive surface, the insulating material is rubber.

Profile fillers

Profile fillers type has the same design as the profile of trapezoid sheets TR. They are used for both A and B side filling. They provide shape-retaining, weatherproof insulation at the connection of trapezoid and flat sheets (e.g. ridge) against powder snow and pollution from outside.

Lantern

A lantern is a light-admitting corrugated sheet, bright on both sides and made of polyester resin with glass-fibre reinforcement for sheet types TR35 and TR40.

Mass: approx. 1.7 kg/m²

The length (3100 mm) can be changed on the basis of a separate agreement.

APPROBATED (CERTIFIED) PRODUCTS

Czech Product Certification

For the production of galvanized products of quality DX 51D+Z100 and +Z275 according to the regulations of Technical and Test Institute for Constructions Prague.

Construction Industry Technical Licence for construction purpose trapezoid and coffered sheets

Hot-dip galvanized or hot-dip galvanized and organic coated trapezoid sheets: TR 10/100, TR 35/207, HTR 35/207, TR 40/183, TR 135/310.

ISD DUNAFERR DANUBE IRONWORKS PRIVATE COMPANY LIMITED BY SHARES

HEADQUARTERS

Address: H-2400 Dunaújváros, Vasmű tér 1-3.
Postal address: H-2401 Dunaújváros, Pf. 110.
Phone: +36 25 584 000
Fax: +36 25 584 001
E-mail: info@isd-dunaferr.hu

SALES

Address: H-2400 Dunaújváros, Vasmű tér 1-3.
Postal address: H-2401 Dunaújváros, Pf. 110.
Phone: +36 25 581 305, Fax : +36 25 410 023

Address: H-1022 Budapest, Bimbó út 17.
Phone: +36 1 500-4680, Fax: +36 1 500-4601
E-mail: sales@isd-dunaferr.hu

WWW.ISD-DUNAFERR.HU