



**MIORY
STEEL**

SUSTAINABLE INNOVATION
FOR SUSTAINABLE FUTURE

MIORY TINPLATE ROLLING MILL

– PRODUCT RANGE

WWW.MMPZ.BY

2020



PACKAGING STEEL

- **Tinplate** is thin steel strip coated with tin. Depending on coating gauge per each side, it can be produced with either equal or differentiated thickness of coating. **Tinplate** is offered in coils and sheets, according to standards GOST 13345-85 (USSR), GOST R 52204-2004 (Russia), EN 10202:2001 (European Union), ASTM A623/A623M-2016 (USA), JIS G3303-2017 (Japan).
- **Blackplate** is non-tinned thin steel strip according to EN 10205:2017

Advantages :

- Tin coating protects steel from corrosion.
 - Due to tinplate's chemical composition, its application for packaging secures high level of protection against dirt, bacteria, moisture, light and odor.
 - Tinplate is sufficiently strong material. With sound approach to package design, tinplate products show high strength properties, internal pressure shock resistance, air-tightness and impact resistance. These qualities improve protection during transportation and provide easy storage for all types of goods reducing costs for manufacturing and trading companies.
 - Tinplate is resistant to solvents (primarily, to organic ones), that is why it is suitable for packaging of chemically active substances (lacquers, paints, solvents, etc.).
 - Tinplate properties enable application of lithography (widely used for beverage can making), embossing and engraving.
 - Ecological safety and recyclability of tinplate products.
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- The major consumer of tinplate is food canning industry, where it is used for production of tin cans and closures. Further, tinplate is used for production of aerosol cans and package for paintwork materials and petrochemical products.

GRADES TINPLATE / BLACK PLATE

EN 10202-2001 / EN 10205-2017

			GOST 13345	GOST R 52204
Miory Steel Grade	Steel name	Yield Strength (MPa)		
Miory Steel TS 230	TS 230	230 +/-50		T1
Miory Steel TS 245	TS 245	245 +/-50	A1	T2
Miory Steel TS 260	TS 260	260 +/-50	A2	T3
Miory Steel TS 275	TS 275	275 +/-50	A2	T4
Miory Steel TS 290	TS 290	290 +/-50		T5
Miory Steel TS 415		415 +/-50	B	T6
Miory Steel TS 435		435 +/-50	B/C	
Miory Steel TS 520		520 +/-50	D	DR 520
Miory Steel TS 550	TS 550	550 +/-50		DR 550
Miory Steel TS 580		580 +/-50		DR 580
Miory Steel TS 620		620 +/-50		DR 620

ASTM A623M / JIS G 3303

		Nominal Hardness [HR30TSA]	Yield Strength (MPa)
Miory Steel Grade	Temper grade		
Miory Steel T1	T1	49 +/- 4	
Miory Steel T2	T2	53 +/- 4	
Miory Steel T3	T3	57 +/- 4	
Miory Steel T4	T4	61 +/- 4	
Miory Steel DR 7,5	DR 7,5	71 +/- 4	520 +/- 50
Miory Steel DR 8	DR 8	72 +/- 4	550 +/- 50
Miory Steel DR 8,5	DR 8,5	73 +/- 4	580 +/- 50
Miory Steel DR 9	DR 9	75 +/- 4	620 +/- 50

COATINGS & FINISHES

Tin coating:

Coating weights for tin, g/m ² (one side)	
EN 10202	JIS G3303
1,00	
1,40	
2,00	
2,80	2,80
4,00	
5,00	
5,60	5,60
8,40	8,40
11,20	11,20
	12,30
14,00	14,00
15,10	15,10
	16,80

- The above coatings are available for equal or differential coating.
- Marking for differential coatings in accordance with Euronorm, alternative markings on request
- Other tin coatings on request

Chromium passivation for tinplate:

Passivation	Code	Coating weights, mg/m ² (one side)
Chemical	300	1-3
Electrochemical	311	3,5-9

Oiling:

Type of oiling	mg/m ²
DOS	4 +/- 2

Finishes:

Finishing type	Code	Roughness, μm
Bright	BR	≤ 0,35
Fine stone	FS	0,25 - 0,45
Stone	ST	0,35 - 0,60
Heavy Stone	HS	0,50 - 0,90

DIMENSIONS

Coils:

Thickness, mm	Width SR BA*, mm	Width DR BA**, mm
0,100 - 0,119	-	670 - 1000
0,120 - 0,129	-	670 - 1090
0,130 - 0,139	-	670 - 1090
0,140 - 0,149	-	670 - 1090
0,150 - 0,179	670 - 1090	670 - 1220
0,180 - 0,199	670 - 1170	670 - 1220
0,200 - 0,499	670 - 1220	670 - 1220
0,500	670 - 1220	670 - 1220

*SR BA – single reduction batch annealing

**DR BA – double reduction batch annealing

Sheets:

Thickness, mm	Width SR BA, mm	Width DR BA, mm
0,100 - 0,119	-	712 - 1000
0,120 - 0,129	-	712 - 1090
0,130 - 0,139	-	712 - 1090
0,140 - 0,149	-	712 - 1090
0,150 - 0,179	712 - 1090	712 - 1220
0,180 - 0,199	712 - 1170	712 - 1220
0,200 - 0,499	712 - 1220	712 - 1220
0,500	712 - 1220	712 - 1220

- Sheet length: straight cut 400 mm to 1200 mm.

Shipping weights & transport dimensions:

Format	Max weight, mt	Max. outside diameter, mm	Inside diameter, mm
Coils	25	2100	420/508
Sheets	2,5	-	-



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THANK YOU FOR YOUR ATTENTION

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