



# Liberty Skopje

## PRODUCTION PROGRAM



### Products available

- Organic coated coils - OC
- Hot dip galvanized coils and sheets – HDGC and HDGS
- Cold rolled coils and sheets – CRC and CRS

### 1. Steel Grades available

Product	Grade	Description	TDCS	remark
Coated products	DX51D +Z	Low carbon steel for cold forming	EN 10346	
	DX51D CBF*+Z	Low carbon steel for cold forming	EN 10346	*steel grade suitable for round shapes
	S220GD +Z	Steels for construction	EN 10346	
	S250GD +Z	Steels for construction	EN 10346	
	S280GD +Z	Steels for construction	EN 10346	
	S320GD +Z**	Steels for construction	EN 10346	
	S350GD +Z**	Steels for construction	EN 10346	** - Limited volumes
Cold rolled	DC01 Am	Low carbon steel for cold forming	EN 10130	
	DC03 Am	Low carbon steel for cold forming	EN 10130	

### 2. Dimensional range

Product	Thickness		Width		Length for sheets	
	Min. (mm)	Max. (mm)	Min. (mm)	Max. (mm)	Min. (mm)	Max. (mm)
Organic coated	0.27*	1.0	1000**	1250		
Hot dip galvanized	0.30*	2.0	1000**	1250	610	4880
Cold rolled	0.30*	2.5	1000**	1250	610	4880

\*for thickness < 0.30mm minimum coil weight must be 3 tons.

\*\*lower width than 1000mm accepted conditionally – availability of requested width, thicknesses less than 0.35mm not offered

Thickness 0.27mm for OC product is open for limited volume

Grade DX51D CBF is accepted with limited volume for limited range of applications

#### 2.1. Thickness Tolerances

N – normal tolerance      S – special tolerance      1/2EN – half EN – conditional agreement

#### 2.2. Width Tolerances

N – normal tolerance      S – special tolerance

#### 2.3. Standard material – dimension with Zinc layer

Thickness	Width	Zinc layer (gr/m <sup>2</sup> )
0.45 or 0.50	1000	100
0.45 or 0.50	1250	100
0.45 or 0.50	1250	140



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## 3. Quantity

Minimum quantity per item	15 tons
Quantity tolerances	If order $\leq$ 50 tons tolerance is +/- 20%
	If order $>$ 50 tons tolerance is +/- 10%

Claims will be considered above 2% of the delivered order quantity

10% tolerance of ordered quantity per order for underweight coils against requested coil weight

### 3.1. Recommendation for ordering low quantity of Nonstandard material

Width		Order quantity if below 50 tons
Min. (mm)	Max. (mm)	(MT)
900	980	11 or 22 or 33 or 44
>980	1120	13 or 26 or 39
>1120	1250	15 or 30 or 45

Below 50mt we need multiplies of single coils, over 50 mt no volume restriction.

For any new application or new customers recommendation is to start with trial of max 50 tons to validate the product specification.

## 4. Quality documents according EN 10204

Mill test certificate 2.1; 2.2

Mill test certificate 3.1

## 5. Transport

Increased transport costs may occur if it is ordered coils with higher weight than 13 tons.

Please consult us regarding ordering coils with higher weight.



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## 6. ORGANIC COATED

### 6.1. Zn coating range

Min.Z100                      Z140                      Z200                      Z225                      Max. Z275

### 6.2. Paint coating combinations

Type	Side	Code	Coat	Coating thickness	Description	Aspect
Standard	top	SKSTDNW	INTELYCOAT / LIFECOAT	25μ	5μ primer + 20μ top coating	smooth
	bottom	SKBSC-7	Verso 7μ	7μ	7μ back side coating	smooth
	bottom	SKBSC-10	Verso 10μ	10μ	10μ back side coating	smooth
Double side 25	top	SKSTDNW	INTELYCOAT / LIFECOAT	25μ	5μ primer + 20μ top coating	smooth
	bottom	SKSTDNW	INTELYCOAT / LIFECOAT	25μ	5μ primer + 20μ top coating	smooth
Double side 20**	top	SKSTDNW	INTELYCOAT / LIFECOAT	25μ	5μ primer + 20μ top coating	smooth
	bottom	SKAA		20μ	5μ primer + 15μ top coating	smooth
Double side 15**	top	SKSTDNW	INTELYCOAT / LIFECOAT	25μ	5μ primer + 20μ top coating	smooth
	bottom	SKANW		15μ	5μ primer + 10μ top coating	smooth
Mat 25μ	top	SKHDM25NW	LIFECOAT Mat	25μ	5μ primer + 20μ top coating	wrinkled
	bottom	SKBSC-7	Verso 7μ	7μ	7μ back side coating	rough
Mat 35μ	top	SKHDM35NW	LIFECOAT Mat	35μ	10μ primer + 25μ top coating	wrinkled
	bottom	SKBSC-7	Verso 7μ	7μ	7μ back side coating	rough

\* INTELYCOAT available for Z100, Z140, Z200 coating range

\* LIFECOAT available for Z225, Z275

### 6.3. Available colors

Standard colors top side for smooth surface

9002	3009	8017	8019	5010	9006	6028	3011	DP302	TDM
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Standard color for back side, coating code SKBSC-7

7030
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Color palette for back side, coating code SKBSC-10

8019	8017	3009	TDM
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\*All other colors according RAL card or color matching as per customer sample are available on request.

\*\*For specification Double side 20 (SKAA) and Double side 15 (SKANW) only limited colors feasible.

Feasible colors for bottom side, coating code SKAA, SKANW

8017	8019	9006	TDM
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Trial colors not validated for bottom side, coating code SKAA, SKANW

7016	3009	9005	3005	3011
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### 6.4. Coil inner diameter

Available diameters	tolerance	remark
508 mm	+/- 20mm	Carton sleeve available on coils
610 mm	+/- 20mm	No possibility for cartoon sleeve

### 6.5. Coil Weight

Standard offered CW	Type of coating	Max coil weight
	Smooth	12 tons
Mat	6 tons	

\* Min coil weight is 40% from max coil weight ordered

**10% tolerance of ordered quantity per order for underweight coils against requested coil weight**

### 6.6. Packaging

Type of packaging		description
L16	Paper	VCI paper +Inside sleeve protection (cardboard*) + 2 inner + 2 outer edge protection rings (steel), +3 circumferential +4 radial straps
L24	Hardboard	VCI Paper + Inside sleeve protection (cardboard*) +Outside sleeve protection (hardboard) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps
L25	Metal	VCI Paper + Inside sleeve protection (cardboard*+steel) +Outside sleeve protection (steel) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps

\*If ID 610 inside sleeve protection is Hardboard, or steel



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## 7. Hot Dip Galvanized

### 7.1. Zn coating range

Min. Z100	Z140	Z200	Z225	Max. Z275
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### 7.2. Zn coating distribution

Only symmetrical coating accepted according EN 10346

### 7.3. Surface Aspect

Code	aspect	remarks
NA	Normal Spangle	
NB	Zero Spangle (skin passed)	Material ready for painting, only without E-passivation (oiling recommended)

### 7.4. Surface protection treatment

Code	Treatment	remarks
C	E-passivated	Cr <sup>3+</sup> no Cr free available
O	Oiled	
CO	E-passivated +oiled	This option is not applicable as NBCO combination
U	Untreated	These untreated conditions accepted only if customer accept risk of corrosion.

### 7.5. Oiling conditions

Oiling Code	Oil q-ty	remarks
N – Normal	> 1 g/m <sup>2</sup>	All thicknesses
L - Light	0.5 - 1 g/m <sup>2</sup>	Limited to thicknesses < 1.2 mm
<b>VL – Very light</b>	<b>0.3 – 0.5 g/m<sup>2</sup></b>	<b>Limited to thicknesses &lt; 1.2 mm * limited volume</b>

### 7.6. Coil inner diameter

610 mm with tolerance +/- 20mm

inside sleeve protection (cardboard) available on customer request

### 7.7. Coil Weight

	Width	Max coil weight
Standard offered CW	900	16 tons
	1000	18 tons
	1250	20 tons

\* Min coil weight is 40% from max coil weight ordered

**10% tolerance of ordered quantity per order for underweight coils against requested coil weight**

### 7.8. Cut to length

Thickness (min – max)	Width (min – max)	Length (min – max)	Weight (min – max)
0.35 – 2 mm	610 – 1250 mm	610 – 4880 mm	2 - 5 MT

### 7.9. Packaging

Type of packaging	description	
C16 Paper	VCI paper +Inside sleeve protection (Hardboard) + 2 inner + 2 outer edge protection rings (steel), +3 circumferential +4 radial straps	
C24 Hardboard	VCI Paper + Inside sleeve protection (hardboard) +Outside sleeve protection (hardboard) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps	
C26 Metal	VCI Paper + Inside sleeve protection (steel) +Outside sleeve protection (steel) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps	



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## 8. Cold rolled

### 8.1. Surface

Code		remarks
A	Surface Quality	Defects as pores, small marks, minor scratches and light coloring
m	Surface finish	Roughness range from 0.6 to 1.9 microns

### 8.2. Surface protection treatment

Code	Treatment	remarks
O	Oiled	
U	Untreated	These untreated conditions accepted only if customer accept risk of corrosion.

### 8.3. Oiling conditions

Oiling Code	Oil q-ty	remarks
N – Normal	> 1 g/m <sup>2</sup>	All thicknesses
L - Light	0.5 - 1 g/m <sup>2</sup>	Limited to thicknesses < 1.2 mm
<b>VL – Very light</b>	<b>0.3 – 0.5 g/m<sup>2</sup></b>	<b>Under development. Limited to thicknesses &lt; 1.2 mm</b>

### 8.4. Coil inner diameter

610 mm with tolerance +/- 20mm

Inside sleeve protection (cardboard) available on customer request

### 8.5. Coil Weight

	Width	Max coil weight
Standard offered CW	900	14 tons
	1000	16 tons
	1250	19 tons

\* Min coil weight is 40% from max coil weight ordered

**10% tolerance of ordered quantity per order for underweight coils against requested coil weight**

### 8.6. Cut to length

Thickness (min – max)	Width (min – max)	Length (min – max)	Weight (min – max)
0.35 – 2 mm	610 – 1250 mm	610 – 4880 mm	2 - 5 MT

### 8.7. Packaging

Type of packaging		description
C16	Paper	VCI paper +Inside sleeve protection (hardboard) + 2 inner + 2 outer edge protection rings (steel), +3 circumferential +4 radial straps
C24	Hardboard	VCI Paper + Inside sleeve protection (hardboard) +Outside sleeve protection (hardboard) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps
C26	Metal	VCI Paper + Inside sleeve protection (steel) +Outside sleeve protection (steel) + 2 side protection disks (steel), + 2 inner + 2 outer edge protection rings (steel), + 3 circumferential + 6 radial straps

## New Developments

### Enameling grade for Cold rolled, in trial phase, open for industrial trials with customers

For any new application or new customers recommendation is to start with trial of max 50 tons to validate the product specification.