

**NLMK**

# HOT-DIP GALVANIZED STEEL

PRODUCT CATALOGUE



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## SECTION 1

# REFERENCE STANDARDS

**GOST 14918**

Hot-dip galvanized rolled sheets

**EN 10346**

Continuously hot-dip coated steel flat products for cold forming

**GMW2-08**

Low-carbon sheet steel

**GMW 3032-07**

GM Corporate Standard

**VW 50065**

Steel rolled products for cold forming

**HKMC GMG**

Hyundai Kia Motor Corporate Standard

**TABLE LEGEND**

$\sigma_T$	Tensile Strength
$\sigma_B$	Yield Strength
$\delta_4$	Relative Elongation L=80 mm
$r_{90}$	Normal Plastic Anisotropy Factor
$n_{90}$	Strain Hardening Index
Ra	Roughness
NLMK+	Additional capabilities of NLMK
-	Not rated by the standard

## SECTION 2

# GALVANIZED STEEL APPLICATIONS

## Automotive industry

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Passenger vehicles	Inner car body parts	Struts, sills, bumper reinforcement, crankcase guard, side members	DX53D, DX54D, DX56D, HX220YD-HX260YD, HX260LAD-HX420LAD, SGCC, SGCD, SGCEN, SGCUD, SGRC340, SGRC440, CR2, CR3, CR4, CR240LA, CR270LA, CR300LA, CR340LA, CR270B2	01IOT (OCB, BOCB)	2.1	6
	Passenger car trailer	Trailer body shell	DX51D-DX53D	02, 03, 04	2.2	8

## Construction and infrastructure

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Roofing and facade systems	Roofing systems	Metal shingles, corrugated board	DX51D, DX52D, S220GD	02, 03, 04, 220	2.3	9
	Seam roofing	Seam roof panels, as well as additional elements	DX51D, DX52D, DX53D, S220GD	02, 03, 04, 220	2.4	10
	Curtain wall systems (CWS)	Self-supporting structures, guides, facade cassettes	DX51D, S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.5	12
	Rainwater systems	Runners, pipes, elbows, hooks, funnels	DX51D, DX52D, DX53D, S220GD	02, 03, 04, 220,	2.6	13
Sandwich panels	Sandwich panels for walls	Panel cladding sheets	DX51D, S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.7	15
	Sandwich panels for roofs	Panel cladding sheets	DX53D, S220GD	02, 03, 04, 220, 250	2.8	17
Light gauge steel structures and modular buildings	Pre-fabricated steel structure frames	Boxes, trays, brackets, hangers, mounting profiles	S250GD, S280GD, S320GD, S350GD, S390GD, S420GD, S450GD	250, 280, 320, 350, 390, 420, 450	2.9	18
Flooring of buildings and structures	Permanent formwork	Load-bearing corrugated sheet	S220GD, S250GD, S280GD, S320GD, S350GD	220, 280, 320, 350	2.10	19
Doors and gates	Gate systems	Gate leaves, finishing profiled sheets, guides	DX51D, S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.11	20
	Logistics facility bays	Cladding of bay vestibules	DX51D, S220GD, S250GD	02, 03, 04, 220, 250	2.12	21
Shelving and storage systems	Storage systems load-bearing structures	Vertical supports for shelving (racks)	S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.13	22
	Longitudinal and transverse shelving elements	Shelves, beams and connections	S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.14	23
Ventilation, air conditioning and heating	Ventilation ducts and main lines	Air ducts, connecting elements, grilles	DX51D, S220GD, S250GD	02, 03, 04, 220, 250	2.15	24
	Cable support systems	Boxes, trays, brackets, hangers, mounting profiles	DX51D, S220GD	02, 03, 04, 220	2.16	25
Interior finishing elements	Framed and sheathed walls	Frames made of galvanized profiles	DX51D, S220GD	02, 03, 04, 220, 250, 280	2.17	26
Industrial greenhouses and agricultural buildings	Granaries	Elevator bunkers, silos, tanks	S320GD, S350GD, S390GD, S420GD, S450GD	02, 320, 350, 390, 420, 450	2.18	27
	Industrial greenhouses	Guide profiles and electric-welded frame pipes	S250GD, S280GD, S320GD, S350GD, S390GD, S420GD, S450GD	250, 280, 320, 350, 390, 420, 450	2.19	28

## Construction and infrastructure

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Road infrastructure	Guard railings	Profiled road barriers	S220GD, S250GD, S280GD, DX51D, DX52D	02, 03, 220, 250, 280	2.20	29
	Noise barriers	Noise barrier panels	S250GD, S280GD, S320GD, S350GD, S390GD	250, 280, 320, 350, 390	2.21	30
	Utilities	Spiral-wound corrugated pipes, drainage trays	S220GD, S250GD, S280GD	02, 03, 220, 250, 280	2.22	31
	Lighting columns, communication masts	Load-bearing supports and mast structure elements	S250GD, S280GD, S320GD, S350GD, S390GD	250, 280, 320, 350, 390	2.23	32

## Household appliances and commercial equipment

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Large and small appliances	Washing machines, refrigerators, TV sets	Casing for washing machines, refrigerators, TV sets	DX51D, DX52D, DX53D, DX54D	02, 03, 04, 05	2.24	33
Commercial equipment	Refrigerated tables and chambers, store displays	Casings for industrial refrigerator chambers, refrigerated tables, commercial equipment	DX51D, DX52D, DX53D, DX54D	02, 03, 04, 05	2.25	34

## Machine building

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Machine tool building	Machines and specialized equipment	Equipment casings and protective units	DX51D, DX52D, DX53D, S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.26	35
Agricultural equipment	Poultry farming, cattle breeding, crop farming	Broiler systems, incubators, poultry processing machines, housing equipment, storage	DX51D, DX52D, DX53D, S220GD, S250GD, S280GD, S320GD	02, 03, 04, 220, 250, 280, 320	2.27	36
Lifting and transportation	Elevator cabins	Cabin body, entrance groups (doors)	DX51D, DX52D, DX53D, S220GD	02, 03, 04, 220	2.28	37

## Steelmaking industry

Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Metal processing and coating	Pre-painted steel production	Substrate for painting (polymer coating)	DX51D, DX52D, DX53D, S220GD	02, 03, 04, 220	2.29	38

## Electrical equipment

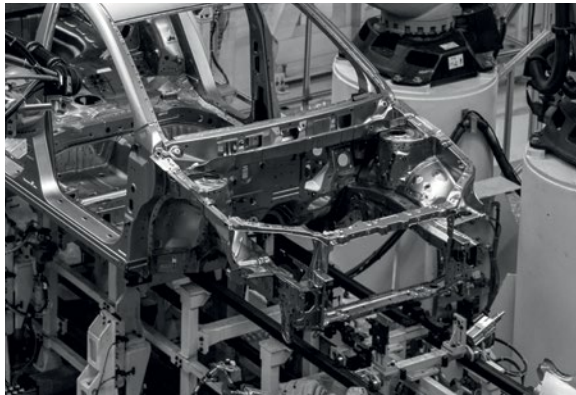
Group	Product	Use cases	Grades as per EN / other standards	Grades as per GOST and TU	Section	Page
Electrical equipment	Switchgear cabinets and sub-stations	Electrical equipment enclosures	DX51D, DX52D, DX53D, S220GD	02, 03, 04, 220	2.30	39

## Consumer goods

Group	Product	Use cases	Grades as per EN / other Standards	Grades as per GOST and TU	Section	Page
Steel furniture	Cabinets, tables, workbenches, drawers	Frames, guides, shelves, cabinet panels, countertops	DX51D, S220GD	02, 03, 04, 220	2.31	40

## SECTION 2.1

# Inner car body parts



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties				
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Ra, $\mu\text{m}$	Flatness, tolerance class (type)
DX53D	EN 10346	0.60–0.70	900–1,605	270–380	140–260	$\geq 38$	–	–	Z100–Z140	0.6–1.9	Standard Special
		0.71–2.00	900–1,820	270–380	140–260	$\geq 30$	–	–	Z100–Z140	0.6–1.9	Standard Special
DX54D	EN 10346	0.60–0.70	900–1,605	260–350	120–220	$\geq 34$	$\geq 1.6$	$\geq 0.18$	Z100–Z140	0.6–1.9	Standard Special
		0.71–2.00	900–1,820	260–350	120–220	$\geq 36$	$\geq 1.6$	$\geq 0.18$	Z100–Z140	0.6–1.9	Standard Special
DX56D	EN 10346	0.60–0.70	900–1,600	260–350	120–180	$\geq 37$	$\geq 1.9$	$\geq 0.21$	Z100–Z140	0.6–1.9	Standard Special
		0.71–1.50	900–1,820	260–350	120–180	$\geq 39$	$\geq 1.9$	$\geq 0.21$	Z100–Z140	0.6–1.9	Standard Special
HX340LAD	EN 10346	0.78–1.60	900–1,515	340–420	410–510	$\geq 21$	–	–	Z100–Z140	0.8–1.9	Standard Special
HX300LAD	EN 10346	0.98–1.50	900–1,600	300–380	380–480	$\geq 23$	–	–	Z100–Z140	0.8–1.9	Standard Special
HX220YD	EN 10346	0.63–1.50	900–1,620	340–420	220–280	$\geq 32$	$\geq 1.5$	$\geq 0.17$	Z100–Z140	0.6–1.9	Standard Special
HX260YD	EN 10346	1.98–2.00	1,200–1,300	380–440	260–320	$\geq 30$	$\geq 1.4$	$\geq 0.16$	Z100–Z140	0.6–1.9	Standard Special
HX260LAD	EN 10346	1.38–2.00	900–1,665	350–430	260–330	$\geq 26$	–	–	Z100–Z140	0.6–1.9	Standard Special

Recommended by NLMK

## INNER CAR BODY PARTS

Grade	Standard	Product mix		Mechanical properties			Properties			Zinc coating class	Ra, $\mu\text{m}$	Flatness, tolerance class (type)
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_B$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$				
SGCC	HKMC GMG 2019.05	0.60-2.00	900-1,820	$\geq 274$	$\leq 225$	$\geq 39$	-	-	45/45 60/60	0.6-1.9	Standard Special	
SGCD	HKMC GMG 2019.05	0.60-2.00	900-1,820	$\geq 274$	$\leq 196$	$\geq 41$	-	-	45/45 60/60	0.6-1.9	Standard Special	
SGCEN	HKMC GMG 2019.05	0.60-1.50	900-1,750	$\geq 265$	$\leq 186$	$\geq 43$	-	-	45/45 60/60	0.6-1.9	Standard Special	
SGRC340	HKMC GMG 05.2008	0.67-1.50	900-1,620	$\geq 340$	195-333	$\geq 35$	-	-	Z100-Z140	0.6-1.9	Standard Special	
CR2	GMW2-08 / VW 50065:2017	0.60-0.70	900-1,500	270-370	140-240	$\geq 32$	$\geq 1.1$	$\geq 0.15$	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
		0.71-2.00	900-1,500	270-370	140-240	$\geq 34$	$\geq 1.1$	$\geq 0.15$	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
CR3	GMW2-08 / VW 50065:2017	0.60-0.70	900-1,500	270-350	140-210	$\geq 36$	$\geq 1.4$	$\geq 0.17$	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
		0.71-2.00	900-1,500	270-350	140-210	$\geq 38$	$\geq 1.4$	$\geq 0.17$	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
CR4	GMW2-08 / VW 50065:2017	0.63-0.70	900-1,480	270-330	140-180	$\geq 38$	$\geq 1.7$	$\geq 0.17$	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
CR300LA	GMW 3032-07 / VW 50065:2017	0.88-1.50	900-1,407	$\geq 370$	300-380	$\geq 22$	-	-	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
CR340LA	GMW 3032-07 / VW 50065:2017	0.78-1.70	900-1,380	$\geq 410$	300-380	$\geq 20$	-	-	45G45G-70G70G / 40/40-60/60	0.6-1.9	Standard Special	
01IOT (OCB)	TU 14-106-438-2002	0.60-0.70	900-1,605	270-350	$\leq 195$	$\geq 34$	$\geq 1.6$	$\geq 0.20$	100-140	0.6-1.9	AF, HF, IF	
		0.71-2.00	900-1,820	270-350	$\leq 195$	$\geq 36$	$\geq 1.6$	$\geq 0.20$	100-140	0.6-1.9	AF, HF, IF	
01IOT (BOCB)	TU 14-106-438-2002	0.60-0.70	900-1,600	270-350	$\leq 185$	$\geq 38$	$\geq 2.0$	$\geq 0.21$	100-140	0.6-1.9	AF, HF, IF	
		0.71-1.50	900-1,820	270-350	$\leq 185$	$\geq 40$	$\geq 2.0$	$\geq 0.21$	100-140	0.6-1.9	AF, HF, IF	

## SECTION 2.2

# Passenger car trailer



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties				
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Ra, $\mu\text{m}$	Flatness, tolerance class (type)
DX51D	EN 10346	0.50	900-1,550	270-500	-	$\geq 18$	-	-	Z100-Z140	0.6-1.9	Standard Special
		0.51-0.70	900-1,620	270-500	-	$\geq 20$	-	-	Z100-Z140	0.6-1.9	Standard Special
		0.70-2.00	900-1,820	270-500	-	$\geq 22$	-	-	Z100-Z140	0.6-1.9	Standard Special
02	GOST 14918	0.50-0.70	900-1,620	270-500	-	$\geq 20$	-	-	100-140	0.6-1.9	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	$\geq 22$	-	-	100-140	0.6-1.9	AF, HF, IF
03	GOST 14918	0.50-0.70	900-1,620	270-420	-	$\geq 24$	-	-	100-140	0.6-1.9	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	$\geq 26$	-	-	100-140	0.6-1.9	AF, HF, IF
		1.51-2.00	900-1,720	270-420	-	$\geq 28$	-	-	100-140	0.6-1.9	AF, HF, IF

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## SECTION 2.3

## Roofing systems



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.40-0.50	900-1,550	270-500	-	≥18	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.70-4.00	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
DX52D	EN 10346	0.40-0.50	900-1,520	270-420	140-300	≥22	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-420	140-300	≥24	-	-	Z80-Z450	Standard Special
		0.71-3.05	900-1,720	270-420	140-300	≥26	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.51-0.70	900-1,520	≥300	≥220	≥18	-	-	Z80-Z600	Standard Special
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	Z80-Z600	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.40-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
220	GOST 14918	0.30-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

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## SECTION 2.4

# Seam roofing



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.40-0.50	900-1,550	270-500	-	≥18	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.70-4.00	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
DX52D	EN 10346	0.40-0.50	900-1,520	270-420	140-300	≥22	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-420	140-300	≥24	-	-	Z80-Z450	Standard Special
		0.71-3.05	900-1,720	270-420	140-300	≥26	-	-	Z80-Z450	Standard Special
DX53D	EN 10346	0.48-0.50	900-1,280	270-380	140-260	≥26	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,605	270-380	140-260	≥38	-	-	Z80-Z450	Standard Special
		0.71-2.00	900-1,820	270-380	140-260	≥30	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.40-0.50	900-1,520	≥300	≥220	≥16	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,520	≥300	≥220	≥18	-	-	Z80-Z450	Standard Special
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
NLMK+	EN 10346	-	-	-	-	-	-	-	Z600	-

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## SEAM ROOFING

Grade	Standard	Product mix		Mechanical properties			Properties		Zinc coating class	Flatness, tolerance class (type)
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_B$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$		
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.40-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
04	GOST 14918	0.48-0.70	900-1,605	270-380	≤260	≥28	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-380	≤260	≥30	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,750	270-380	≤260	≥32	-	-	80-450	AF, HF, IF
220	GOST 14918	0.40-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

■ Recommended by NLMK

## SECTION 2.5

# Curtain wall systems (CWS)



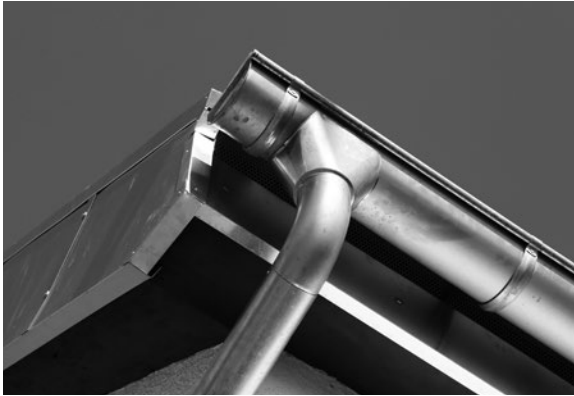
## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.70–4.00	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.71–4.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
		1.51–3.05	900–1,720	270–420	–	≥28	–	–	80–450	AF, HF, IF
220	GOST 14918	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.6

# Rainwater systems



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.45–0.50	900–1,550	270–500	–	≥18	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,620	270–500	–	≥20	–	–	Z80–Z450	Standard Special
		0.70–4.00	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
DX52D	EN 10346	0.45–0.50	900–1,520	270–420	140–300	≥22	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,620	270–420	140–300	≥24	–	–	Z80–Z450	Standard Special
		0.71–3.05	900–1,720	270–420	140–300	≥26	–	–	Z80–Z450	Standard Special
DX53D	EN 10346	0.48–0.50	900–1,280	270–380	140–260	≥26	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,605	270–380	140–260	≥38	–	–	Z80–Z450	Standard Special
		0.71–2.00	900–1,820	270–380	140–260	≥30	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.51–0.70	900–1,520	≥300	≥220	≥18	–	–	Z80–Z450	Standard Special
NLMK+	EN 10346	–	–	–	–	–	–	–	Z600	–

Recommended by NLMK

## RAINWATER SYSTEMS

Grade	Standard	Product mix		Mechanical properties			Properties		Zinc coating class	Flatness, tolerance class (type)
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_B$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$		
02	GOST 14918	0.45-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.45-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
04	GOST 14918	0.48-0.70	900-1,605	270-380	≤260	≥28	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-380	≤260	≥30	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,750	270-380	≤260	≥32	-	-	80-450	AF, HF, IF
220	GOST 14918	0.50-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

 Recommended by NLMK

## SECTION 2.7

# Sandwich panels for walls



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.45–0.50	900–1,550	270–500	–	≥18	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,620	270–500	–	≥20	–	–	Z80–Z450	Standard Special
		0.70–1.50	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.45–0.50	900–1,520	≥300	≥220	≥16	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,520	≥300	≥220	≥18	–	–	Z80–Z450	Standard Special
		0.71–1.50	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
S250GD	EN 10346	0.71–1.50	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S280GD	EN 10346	0.71–3.50	900–1,600	≥360	≥280	≥18	–	–	Z80–Z450	Standard Special
S320GD	EN 10346	0.71–1.50	900–1,550	≥390	≥320	≥15	–	–	Z80–Z450	Standard Special
		1.51–4.00	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
NLMK+	EN 10346	–	–	–	–	–	–	–	Z600	–

Recommended by NLMK

## SANDWICH PANELS FOR WALLS

Grade	Standard	Product mix		Mechanical properties			Properties		Zinc coating class	Flatness, tolerance class (type)
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_B$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$		
02	GOST 14918	0.28-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.50-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
04	GOST 14918	0.50-0.70	900-1,605	270-380	≤260	≥28	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-380	≤260	≥30	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,750	270-380	≤260	≥32	-	-	80-450	AF, HF, IF
220	GOST 14918	0.71-3.50	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
250	GOST 14918	0.71-4.00	900-1,620	≥330	≥250	≥19	-	-	80-450	AF, HF, IF
280	GOST 14918	0.71-3.50	900-1,600	≥360	≥280	≥18	-	-	80-450	AF, HF, IF
320	GOST 14918	0.71-4.00	900-1,600	≥390	≥320	≥17	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK



## SECTION 2.8

# Sandwich panels for roofs



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX53D	EN 10346	0.48–0.50	900–1,280	270–380	140–260	≥26	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,605	270–380	140–260	≥38	–	–	Z80–Z450	Standard Special
		0.71–2.00	900–1,820	270–380	140–260	≥30	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.51–0.70	900–1,520	≥300	≥220	≥18	–	–	Z80–Z450	Standard Special
		0.71–3.52	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.50–0.70	900–1,620	270–500	–	≥20	–	–	80–450	AF, HF, IF
		0.71–2.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.50–0.70	900–1,620	270–420	–	≥24	–	–	80–450	AF, HF, IF
		0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
		1.51–2.00	900–1,720	270–420	–	≥28	–	–	80–450	AF, HF, IF
04	GOST 14918	0.50–0.70	900–1,605	270–380	≤260	≥28	–	–	80–450	AF, HF, IF
		0.71–1.50	900–1,820	270–380	≤260	≥30	–	–	80–450	AF, HF, IF
		1.51–2.00	900–1,750	270–380	≤260	≥32	–	–	80–450	AF, HF, IF
220	GOST 14918	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.9

# Pre-fabricated steel structure frames



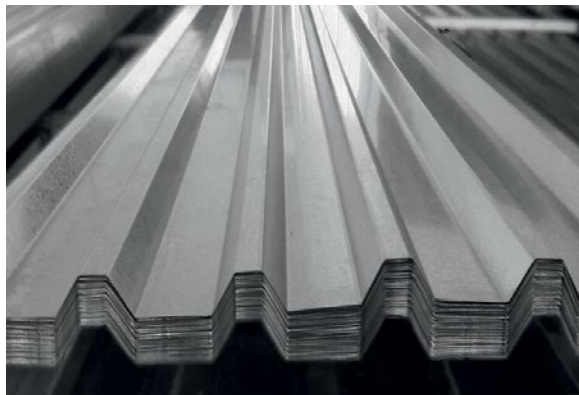
## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_b$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S280GD	EN 10346	0.71–3.02	900–1,600	≥360	≥280	≥18	–	–	Z80–Z450	Standard Special
S320GD	EN 10346	0.71–1.50	900–1,550	≥390	≥320	≥15	–	–	Z80–Z450	Standard Special
		1.51–4.00	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
S350GD	EN 10346	0.71–1.50	900–1,550	≥420	≥350	≥14	–	–	Z80–Z450	Standard Special
		1.51–4.00	900–1,600	≥420	≥350	≥16	–	–	Z80–Z450	Standard Special
S390GD	EN 10346	1.45–3.52	900–1,520	≥460	≥390	≥16	–	–	Z80–Z450	Standard Special
S420GD	EN 10346	1.48–2.52	900–1,320	≥480	≥420	≥15	–	–	Z80–Z450	Standard Special
S450GD	EN 10346	1.48–2.52	900–1,320	≥510	≥450	≥14	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
350	GOST 14918	0.74–4.00	900–1,600	≥420	≥350	≥16	–	–	80–450	AF, HF, IF
390	GOST 14918	1.45–3.50	900–1,520	≥450	≥390	≥15	–	–	80–450	AF, HF, IF
420	GOST 14918	1.48–2.52	900–1,320	≥480	≥420	≥14	–	–	80–450	AF, HF, IF
450	GOST 14918	1.48–2.52	900–1,320	≥480	≥420	≥14	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.10

# Permanent formwork



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S220GD	EN 10346	0.71-3.52	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
S250GD	EN 10346	0.71-3.52	900-1,620	≥330	≥250	≥19	-	-	Z80-Z450	Standard Special
S280GD	EN 10346	0.71-3.02	900-1,600	≥360	≥280	≥18	-	-	Z80-Z450	Standard Special
S320GD	EN 10346	0.71-1.50	900-1,550	≥390	≥320	≥15	-	-	Z80-Z450	Standard Special
		1.51-4.00	900-1,600	≥390	≥320	≥17	-	-	Z80-Z450	Standard Special
S350GD	EN 10346	0.71-1.50	900-1,550	≥420	≥350	≥14	-	-	Z80-Z450	Standard Special
		1.51-4.00	900-1,600	≥420	≥350	≥16	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
220	GOST 14918	0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
280	GOST 14918	0.71-3.00	900-1,600	≥360	≥280	≥18	-	-	80-450	AF, HF, IF
320	GOST 14918	0.71-4.00	900-1,600	≥390	≥320	≥17	-	-	80-450	AF, HF, IF
350	GOST 14918	0.74-4.00	900-1,600	≥420	≥350	≥16	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.11

# Gate systems



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	051-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.70-4.00	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.51-0.70	900-1,520	≥300	≥220	≥18	-	-	Z80-Z450	Standard Special
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
S250GD	EN 10346	0.51-0.70	900-1,500	≥330	≥250	≥17	-	-	Z80-Z450	Standard Special
		0.71-4.00	900-1,620	≥330	≥250	≥19	-	-	Z80-Z450	Standard Special
02	GOST 14918	0.50-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.45-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
220	GOST 14918	0.45-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
250	GOST 14918	0.71-4.00	900-1,620	≥330	≥250	≥19	-	-	80-450	AF, HF, IF
280	GOST 14918	0.50-0.70	900-1,500	≥360	≥280	≥16	-	-	80-450	AF, HF, IF
		0.71-3.00	900-1,600	≥360	≥280	≥18	-	-	80-450	AF, HF, IF
320	GOST 14918	0.71-4.00	900-1,600	≥390	≥320	≥17	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.12

# Logistics facility bays



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	051-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.70-4.00	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.71-3.52	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
S250GD	EN 10346	0.71-3.52	900-1,620	≥330	≥250	≥19	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
220	GOST 14918	0.45-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
250	GOST 14918	0.71-4.00	900-1,620	≥330	≥250	≥19	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.13

# Storage systems load-bearing structures



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S220GD	EN 10346	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S280GD	EN 10346	0.71–3.50	900–1,600	≥360	≥280	≥18	–	–	Z80–Z450	Standard Special
S320GD	EN 10346	0.71–1.50	900–1,550	≥390	≥320	≥15	–	–	Z80–Z450	Standard Special
		1.51–4.00	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.71–4.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
		1.51–3.05	900–1,720	270–420	–	≥28	–	–	80–450	AF, HF, IF
220	GOST 14918	0.45–0.70	900–1,520	≥300	≥220	≥18	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.50–0.70	900–1,500	≥360	≥280	≥16	–	–	80–450	AF, HF, IF
		0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.14

# Longitudinal and transverse shelving elements



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S220GD	EN 10346	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S280GD	EN 10346	0.71–3.50	900–1,600	≥360	≥280	≥18	–	–	Z80–Z450	Standard Special
S320GD	EN 10346	0.71–1.50	900–1,550	≥390	≥320	≥15	–	–	Z80–Z450	Standard Special
		1.51–4.00	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.71–4.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
		1.51–3.05	900–1,720	270–420	–	≥28	–	–	80–450	AF, HF, IF
220	GOST 14918	0.45–0.70	900–1,520	≥300	≥220	≥18	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.15

# Ventilation ducts and main lines



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.45–0.50	900–1,550	270–500	–	≥18	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,620	270–500	–	≥20	–	–	Z80–Z450	Standard Special
		0.71–1.45	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.45–0.50	900–1,520	≥300	≥220	≥16	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,520	≥300	≥220	≥18	–	–	Z80–Z450	Standard Special
		0.71–1.45	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.40–0.70	900–1,620	270–500	–	≥20	–	–	80–450	AF, HF, IF
		0.71–1.20	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.50–0.70	900–1,620	270–420	–	≥24	–	–	80–450	AF, HF, IF
		0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
220	GOST 14918	0.45–0.70	900–1,520	≥300	≥220	≥18	–	–	80–450	AF, HF, IF
		0.71–3.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–2.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK



## SECTION 2.16

# Cable support systems



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$f_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.45–0.50	900–1,550	270–500	–	≥18	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,620	270–500	–	≥20	–	–	Z80–Z450	Standard Special
		0.71–1.45	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
S220GD	EN 10346	0.45–0.50	900–1,520	≥300	≥220	≥16	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,520	≥300	≥220	≥18	–	–	Z80–Z450	Standard Special
		0.71–1.45	900–1,620	≥300	≥220	≥20	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.28–0.70	900–1,620	270–500	–	≥20	–	–	80–450	AF, HF, IF
		0.71–3.50	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
03	GOST 14918	0.71–1.50	900–1,720	270–420	–	≥26	–	–	80–450	AF, HF, IF
220	GOST 14918	0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.17

# Framed and sheathed walls



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
02	GOST 14918	0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
220	GOST 14918	0.45-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-3.50	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
250	GOST 14918	0.71-4.00	900-1,620	≥330	≥250	≥19	-	-	80-450	AF, HF, IF
280	GOST 14918	0.50-0.70	900-1,500	≥360	≥280	≥16	-	-	80-450	AF, HF, IF
		0.71-3.00	900-1,600	≥360	≥280	≥18	-	-	80-450	AF, HF, IF
NLMK+	GOST 14918	-	-	-	-	-	-	-	600	-

Recommended by NLMK

## SECTION 2.18

# Granaries



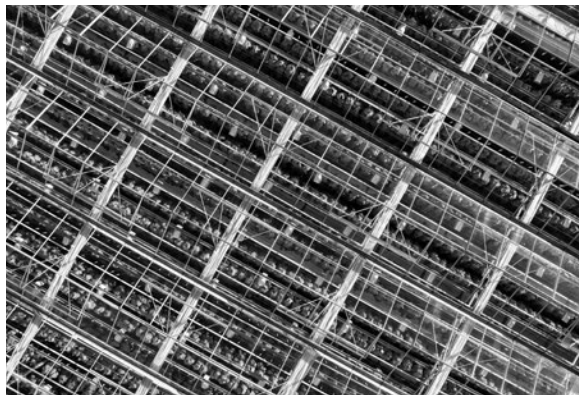
## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_t$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S320GD	EN 10346	1.51–4.00	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
S350GD	EN 10346	1.51–4.00	900–1,600	≥420	≥350	≥16	–	–	Z80–Z450	Standard Special
S390GD	EN 10346	1.45–3.52	900–1,520	≥460	≥390	≥16	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.71–4.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
320	GOST 14918	0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
350	GOST 14918	0.74–4.00	900–1,600	≥420	≥350	≥16	–	–	80–450	AF, HF, IF
390	GOST 14918	1.45–3.50	900–1,520	≥450	≥390	≥15	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.19

# Industrial greenhouses



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S280GD	EN 10346	0.71–3.02	900–1,600	≥360	≥280	≥18	–	–	Z80–Z450	Standard Special
S320GD	EN 10346	1.51–3.02	900–1,600	≥390	≥320	≥17	–	–	Z80–Z450	Standard Special
S350GD	EN 10346	1.51–3.52	900–1,600	≥420	≥350	≥16	–	–	Z80–Z450	Standard Special
S390GD	EN 10346	1.45–3.52	900–1,520	≥460	≥390	≥16	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.50–0.70	900–1,500	≥360	≥280	≥16	–	–	80–450	AF, HF, IF
		0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
350	GOST 14918	0.74–4.00	900–1,600	≥420	≥350	≥16	–	–	80–450	AF, HF, IF
390	GOST 14918	1.45–3.50	900–1,520	≥450	≥390	≥15	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.20

# Guard railings



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties		Zinc coating class	Flatness, tolerance class (type)
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$		
S250GD	EN 10346	0.45–0.50	900–1,350	≥330	≥250	≥15	–	–	Z80–Z450	Standard Special
		0.51–0.70	900–1,500	≥330	≥250	≥17	–	–	Z80–Z450	Standard Special
		0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
DX51D	EN 10346	0.70–2.00	900–1,820	270–500	–	≥22	–	–	Z80–Z450	Standard Special
DX52D	EN 10346	0.71–3.05	900–1,720	270–420	140–300	≥26	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
02	GOST 14918	0.45–0.70	900–1,620	270–500	–	≥20	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,820	270–500	–	≥22	–	–	80–450	AF, HF, IF
220	GOST 14918	0.45–0.70	900–1,520	≥300	≥220	≥18	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,620	≥300	≥220	≥20	–	–	80–450	AF, HF, IF
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.21

# Noise barriers



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_T$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S350GD	EN 10346	1.51–4.00	900–1,600	≥420	≥350	≥16	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.50–0.70	900–1,500	≥360	≥280	≥16	–	–	80–450	AF, HF, IF
		0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.50–0.70	900–1,270	≥390	≥320	≥15	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
350	GOST 14918	0.74–4.00	900–1,600	≥420	≥350	≥16	–	–	80–450	AF, HF, IF
390	GOST 14918	1.45–3.50	900–1,520	≥450	≥390	≥15	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK

## SECTION 2.22

## Utilities



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
220	GOST 14918	0.40-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
250		0.71-1.50	900-1,620	≥330	≥250	≥19	-	-	80-450	AF, HF, IF
NLMK+	GOST 14918	-	-	-	-	-	-	-	600	-

■ Recommended by NLMK

## SECTION 2.23

# Lighting columns, communication masts



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S250GD	EN 10346	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	Z80–Z450	Standard Special
S350GD	EN 10346	1.51–4.00	900–1,600	≥420	≥350	≥16	–	–	Z80–Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	–	–	–	–	–	–	–	<b>Z600</b>	–
250	GOST 14918	0.71–4.00	900–1,620	≥330	≥250	≥19	–	–	80–450	AF, HF, IF
280	GOST 14918	0.50–0.70	900–1,500	≥360	≥280	≥16	–	–	80–450	AF, HF, IF
		0.71–3.00	900–1,600	≥360	≥280	≥18	–	–	80–450	AF, HF, IF
320	GOST 14918	0.50–0.70	900–1,270	≥390	≥320	≥15	–	–	80–450	AF, HF, IF
		0.71–4.00	900–1,600	≥390	≥320	≥17	–	–	80–450	AF, HF, IF
350	GOST 14918	0.74–4.00	900–1,600	≥420	≥350	≥16	–	–	80–450	AF, HF, IF
390	GOST 14918	1.45–3.50	900–1,520	≥450	≥390	≥15	–	–	80–450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	–	–	–	–	–	–	–	<b>600</b>	–

Recommended by NLMK



## SECTION 2.24

# Washing machines, refrigerators, TV sets



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.70	900-1,620	270-500	-	≥20	-	-	Z100-Z180	Standard Special
		0.71-1.00	900-1,820	270-500	-	≥22	-	-	Z100-Z180	Standard Special
DX52D	EN 10346	0.50	900-1,520	270-420	140-300	≥22	-	-	Z100-Z180	Standard Special
		0.51-0.70	900-1,620	270-420	140-300	≥24	-	-	Z100-Z180	Standard Special
		0.71-1.00	900-1,720	270-420	140-300	≥26	-	-	Z100-Z180	Standard Special
DX53D	EN 10346	0.70	900-1,605	270-380	140-260	≥38	-	-	Z100-Z180	Standard Special
		0.71-1.00	900-1,820	270-380	140-260	≥30	-	-	Z100-Z180	Standard Special
DX54D	EN 10346	0.70	900-1,605	260-350	120-220	≥34	≥1,6	≥0,18	Z100-Z180	Standard Special
		0.71-1.00	900-1,820	260-350	120-220	≥36	≥1,6	≥0,18	Z100-Z180	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z450-Z600</b>	-
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	100-180	AF, HF, IF
		0.71-2.00	900-1,820	270-500	-	≥22	-	-	100-180	AF, HF, IF
03	GOST 14918	0.70	900-1,620	270-420	-	≥24	-	-	100-180	AF, HF, IF
		0.71-1.20	900-1,720	270-420	-	≥26	-	-	100-180	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>450-600</b>	-

Recommended by NLMK

## SECTION 2.25

# Refrigerated tables and chambers, store displays



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.70-1.00	900-1,820	270-500	-	≥22	-	-	Z100-Z180	Standard Special
DX52D	EN 10346	0.60-0.70	900-1,620	270-420	140-300	≥24	-	-	Z100-Z180	Standard Special
		0.71-1.00	900-1,720	270-420	140-300	≥26	-	-	Z100-Z180	Standard Special
DX53D	EN 10346	0.60-0.70	900-1,605	270-380	140-260	≥38	-	-	Z100-Z180	Standard Special
		0.71-1.00	900-1,820	270-380	140-260	≥30	-	-	Z100-Z180	Standard Special
DX54D	EN 10346	0.60-0.70	900-1,605	260-350	120-220	≥34	≥1,6	≥0,18	Z100-Z180	Standard Special
		0.71-1.00	900-1,820	260-350	120-220	≥36	≥1,6	≥0,18	Z100-Z180	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z450-Z600</b>	-
02	GOST 14918	0.40-0.70	900-1,620	270-500	-	≥20	-	-	100-180	AF, HF, IF
		0.71-1.00	900-1,820	270-500	-	≥22	-	-	100-180	AF, HF, IF
03	GOST 14918	0.40-0.70	900-1,620	270-420	-	≥24	-	-	100-180	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	100-180	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>450-600</b>	-

Recommended by NLMK

## SECTION 2.26

# Machines and specialized equipment



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
S220GD	EN 10346	0.51-0.70	900-1,520	$\geq 300$	$\geq 220$	$\geq 18$	-	-	Z80-Z450	Standard Special
		0.71-4.00	900-1,620	$\geq 300$	$\geq 220$	$\geq 20$	-	-	Z80-Z450	Standard Special
S250GD	EN 10346	0.71-4.00	900-1,620	$\geq 330$	$\geq 250$	$\geq 19$	-	-	Z80-Z450	Standard Special
S280GD	EN 10346	0.71-3.02	900-1,600	$\geq 360$	$\geq 280$	$\geq 18$	-	-	Z80-Z450	Standard Special
02	GOST 14918	0.71-4.00	900-1,820	270-500	-	$\geq 22$	-	-	80-450	-
03	GOST 14918	0.71-1.50	900-1,720	270-420	-	$\geq 26$	-	-	80-450	-
		1.51-3.05	900-1,720	270-420	-	$\geq 28$	-	-	80-450	-
220	GOST 14918	0.71-4.00	900-1,620	$\geq 300$	$\geq 220$	$\geq 20$	-	-	80-450	-
NLMK+	GOST 14918	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.27

# Poultry farming, cattle breeding, crop farming



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	051-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
DX52D	EN 10346	0.51-0.70	900-1,620	270-420	140-300	≥24	-	-	Z80-Z450	Standard Special
DX53D	EN 10346	0.51-0.70	900-1,605	270-380	140-260	≥38	-	-	Z80-Z450	Standard Special
		0.71-2.00	900-1,820	270-380	140-260	≥30	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.71-1.20	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.50-0.70	900-1,620	270-500	-	≥20	-	-	80-450	-
		0.71-2.00	900-1,820	270-500	-	≥22	-	-	80-450	-
03	GOST 14918	0.50-0.70	900-1,620	270-420	-	≥24	-	-	80-450	-
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	-
		1.51-2.00	900-1,720	270-420	-	≥28	-	-	80-450	-
220	GOST 14918	0.71-2.00	900-1,620	≥300	≥220	≥20	-	-	80-450	-
250	GOST 14918	0.71-2.00	900-1,620	≥330	≥250	≥19	-	-	80-450	-
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.28

# Elevator cabins



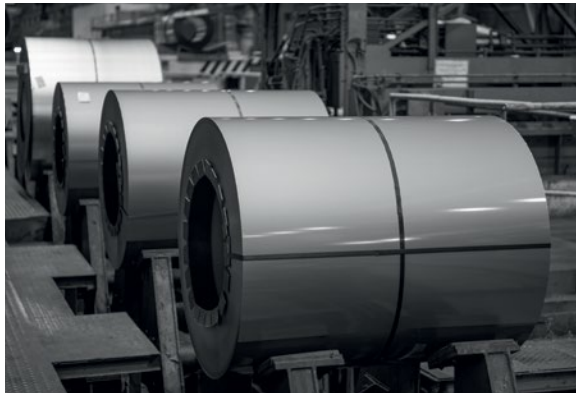
## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.70-1.50	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
DX52D	EN 10346	0.71-1.50	900-1,720	270-420	140-300	≥26	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.71-2.00	900-1,820	270-500	-	≥22	-	-	80-450	-
03	GOST 14918	0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	-
		1.51-2.00	900-1,720	270-420	-	≥28	-	-	80-450	-
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.29

# Pre-painted steel production



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.40-0.50	900-1,550	270-500	-	≥18	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.71-1.20	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
DX52D	EN 10346	0.40-0.50	900-1,520	270-420	140-300	≥22	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-420	140-300	≥24	-	-	Z80-Z450	Standard Special
		0.71-1.00	900-1,720	270-420	140-300	≥26	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	1.00-2.00	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.30-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-1.20	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.30-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
04	GOST 14918	0.48-0.70	900-1,605	270-380	≤260	≥28	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-380	≤260	≥30	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,750	270-380	≤260	≥32	-	-	80-450	AF, HF, IF
220	GOST 14918	0.35-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-2.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK

## SECTION 2.30

# Switchgear cabinets and sub-stations



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
02	GOST 14918	0.25-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-2.50	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.50-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
220	GOST 14918	0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
NLMK+	GOST 14918	-	-	-	-	-	-	-	600	-

Recommended by NLMK

## SECTION 2.31

# Cabinets, tables, workbenches, drawers



## GRADES PRODUCED BY NLMK

Grade	Standard	Product mix		Mechanical properties			Properties			
		Thickness, mm	Width, mm	$\sigma_r$ , N/mm <sup>2</sup>	$\sigma_s$ , N/mm <sup>2</sup>	$\delta_4$ , %	$r_{90}$	$n_{90}$	Zinc coating class	Flatness, tolerance class (type)
DX51D	EN 10346	0.40-0.50	900-1,550	270-500	-	≥18	-	-	Z80-Z450	Standard Special
		0.51-0.70	900-1,620	270-500	-	≥20	-	-	Z80-Z450	Standard Special
		0.70-2.00	900-1,820	270-500	-	≥22	-	-	Z80-Z450	Standard Special
S220GD	EN 10346	0.71-3.50	900-1,620	≥300	≥220	≥20	-	-	Z80-Z450	Standard Special
<b>NLMK+</b>	<b>EN 10346</b>	-	-	-	-	-	-	-	<b>Z600</b>	-
02	GOST 14918	0.35-0.70	900-1,620	270-500	-	≥20	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,820	270-500	-	≥22	-	-	80-450	AF, HF, IF
03	GOST 14918	0.28-0.70	900-1,620	270-420	-	≥24	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,720	270-420	-	≥26	-	-	80-450	AF, HF, IF
		1.51-3.05	900-1,720	270-420	-	≥28	-	-	80-450	AF, HF, IF
04	GOST 14918	0.48-0.70	900-1,605	270-380	≤260	≥28	-	-	80-450	AF, HF, IF
		0.71-1.50	900-1,820	270-380	≤260	≥30	-	-	80-450	AF, HF, IF
		1.51-2.00	900-1,750	270-380	≤260	≥32	-	-	80-450	AF, HF, IF
220	GOST 14918	0.28-0.70	900-1,520	≥300	≥220	≥18	-	-	80-450	AF, HF, IF
		0.71-4.00	900-1,620	≥300	≥220	≥20	-	-	80-450	AF, HF, IF
<b>NLMK+</b>	<b>GOST 14918</b>	-	-	-	-	-	-	-	<b>600</b>	-

Recommended by NLMK





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