

# Patikros sertifikatas 3.1

3.1 Sertifikatas atitinkantis EN 10204

## Išanksto izoliuoti vamzdžiai

# LOGSTOR

Sertifikato Nr: 765267000010

Puslapis: 1 iš 2

### Gamintojas :

LOGSTOR ZABRZE

UL. HANDLOWA 1

ZABRZE 41-807

### Pirkėjas :

LOGSTOR UAB / Gedimino 5 /  
LT-44332 Kaunas

### Pristatymo adresas:

UAB Elektrenų energetikos  
remontas / Savanorių 178B /  
Vilnius

LOGSTOR užsakymo numeris :	765267	Poz.:	000010	Pirkėjo užsakymo Nr.:	3357/Savanorių 178B
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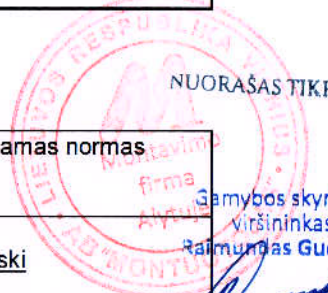
<b>Produktas :</b>	2000S Pipe - 98011114 0219/0315 012M				
<b>Kiekis:</b>	3	<b>Gamybos data :</b>	30.03.2017		
<b>Sertifikatas:</b>	EN 253	<b>Putplasčio kodas</b>	07000000100002		

### Kontrolė ir tyrimai (periodiniai tyrimai)

Savybės	Testo metodas	Dažnis	Vienetas	Reikalavimai	Galutinis rezultatas	
Atsparumas gniuždymui	ISO 844	Kartą per savaite	Mpa	Min. 0,3	Viršus	0,49
					Apačia	0,46
Vandens absorbcija	EN 253	Kartą per savaite	%	Max. 10	Viršus	3,8
					Apačia	4,5
Porų dydis	EN 253	2 kartus į metus	mm	Max. 0,5	0,1	
Ertmės ir burbulai	EN 253	2 kartus į metus	%	Max. 5	0,3	
Ilgamžiškumo bandymas	EN 253	Mėginio testavimas	metai	Min. 30	>30	
Atsparumas kirpimui ašies kryptimi prieš sandinant 23°C	EN 253	Mėginio testavimas	Mpa	Min. 0,12	0,34	
Atsparumas kirpimui ašies kryptimi prieš sandinant 140°C	EN 253	Mėginio testavimas	Mpa	Min. 0,08	0,26	
Atsparumas kirpimui ašies kryptimi po sandinimo 23°C	EN 253	Mėginio testavimas	Mpa	Min. 0,12	0,370	
Atsparumas kirpimui ašies kryptimi po sandinimo 140°C	EN 253	Mėginio testavimas	Mpa	Min. 0,08	0,109	
Šilumos laidumo koeficientas (be senėjimo)	ISO 8497	Mėginio testavimas	W/mxK	Max. 0,029	0,0261	
Šilumos laidumo koeficientas (su senėjimu)	Iso 8497	Mėginio testavimas	W/mxK	-		

LOGSTOR kontroliuoja tyrimų rezultatus, kurie turi atitikti EN253 ir nurodo vėliausių patikrų rezultatus. Patikrų rezultatai saugomi LOGSTOR min. 5 metus..

LOGSTOR patvirtina, kad šio užsakymo išanksto izoliuoti vamzdžiai atitinka reikalaujamas normas EN 253.

	Quality system certified No. CPN 0002369	04.04.2017 Data	Roman Szczepanowski QA-department	
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No.: GT-530-00-30

21-04-10

rev.: 1

JOA

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas

### 3.1 Sertifikatas atitinkantis EN 10204


**LOGSTOR**

Puslapis: 2 iš 2

Logstor Nr	Putos: Šerdis tankis ( $\geq 55 \text{ kg/m}^3$ )		Išorinis diametras (aa-bb)		Neizoliuotas vamzdžio galas 205-225 mm		Parašas
	Viršus	Apačia	Viršus	Apačia	Viršus	Apačia	
3	78	76	318,4	319,7	213	215	QC-16

## Gaminio komplekto sąryšio dokumentacija

Gaminio komplekto sąryšio dokumentacija					
Logstor Nr.	Plieninis vamzdis			Vamzdžio apvalkalas	
	Partijos/Detales Nr.	Plieno tiekėjas	Sertifikato Nr.	Kodas	Sertifikato Nr.
101537448 - 1	1001783078	Salzgitter Mannesmann	70706	33110172	101509214
101537448 - 2	1001783069	Salzgitter Mannesmann	70706	35313172	101518371
101537448 - 3	1001783079	Salzgitter Mannesmann	70706	35313172	101518371

LOGSTOR patvirtina, kad: -Šiame užsakyme naudojami plieninių vamzdžių numeriai sutampa su numeriais pateiktais viršutiniame sąraše Šiame užsakyme naudojami vamzdžio apvalkalo numeriai sutampa su numeriais pateiktais viršutiniame sąraše..			
	Quality system certified No. CPN 0002369	<u>04.04.2017</u> Data	<u>Roman Szczepanowski</u> QA-department

NUORAŠAS TIKRAS

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas



<b>Inspection certificate 3.1</b>		<b>No. (A03)</b>	<b>70706</b>
<b>EN 10204:2004-10</b>		<b>Page</b>	<b>1/7</b>
<b>(A02)</b>		<b>Date</b>	<b>16.11.2016</b>
<b>No. (A07)</b> 4500755696 10.08.2016 <b>Purchaser</b> LOGSTOR Polska Sp. Z.o.o. <b>(A06)</b> Ul. Handlowa 1 41-807 ZABRZE POLEN			
<b>Product</b> steel pipe, HFW-HFI-longitudinally welded		<b>Works order No.</b>	<b>1000033072</b>
<b>(B01)</b>		<b>(A08)</b>	
<b>Steel grade and terms of delivery</b> P235GH TC1		<b>Dispatch note No.</b>	<b>0080149108</b>
<b>(B02-B03)</b> EN 10217-2+A1 (01/05)		<b>11.11.2016</b>	
EN 253 (01/09)		<b>Inspection</b>	<b>WA</b>
Logstor 0001-001/R23, also according Spec.		<b>(A05)</b>	
0001-S005 (27.09.2011)			
C 0,12% - 0,16 %			
Si 0,12 - 0,30 %			
Rm 360 - 500 MPa			
Rp0,2 235 - 375 MPa			
Rp0,2/Rm max. 77%			
für 219,1 x 4,50 mm			
Rp0,2/Rm max. 75%			
00010219698120			
<b>Inside conditions (B06)</b>			
black			
<b>Outside conditions (B06)</b>			
black			
<b>ends (B06)</b>			
bevelled 30 +5/-0°, root face 1,6 +/-0,8 mm, pipe end protection: without plastic caps			
<b>Marking of the product (B06)</b>			
Inside marking at one end:			
Pipe-no.			
single pipe length (mm)			
Stamping outside at one end:			
Pipe-no. sign of works inspector manufactures sign			
EN10217-2 P235GH			
TC1 Heat-no.			

Material data (B01-B99)							
Item	Heat No. (B07)	Quantity (B08)	Cond. of delivery (B04)	D x T x Length (B09-B11)	mm x mm x m	Length (B09-B11)	Weight (B12)
001	325994	78	U	219,1 x 4,50 x 12,000		936,697	22.308
Σ		78	U: as rolled			936,697	22.308

The mentioned length and weight refers to the product in delivery condition

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)

Salzgitter Mannesmann Line Pipe GmbH  
In der Steinwiese 31  
D-57074 Siegen  
(A01)


NUORAŠAS TIKRAS

Gamybos skyriaus  
viršininkas

Salzgitter Mannesmann Line Pipe GmbH · In der Steinwiese 31, 57074 Siegen, Germany · Briefanschrift: Postfach 320152  
57022 Siegen, Germany · Telefon: 0271 691-0 · Telefax: 0271 691-299 · E-Mail: info@smip.eu · Internet: www.smip.eu  
Vorsitzender des Aufsichtsrates: Dr. Clemens Stewing · Geschäftsführung: Jörn Winkels, Vorsitzender; Andreas Betzler  
Sitz der Gesellschaft: Siegen · Registergericht: Amtsgericht Siegen · Registernummer: HRB1435 · Bankverbindung: Commerzbank AG  
Siegen, BLZ 460 400 33, Konto 836 084 400, IBAN DE 68 4604 0033 0836 0844 00, S.W.I.F.T.: COBA DE FF 460  
Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185

<b>Inspection certificate 3.1</b> <b>EN 10204:2004-10</b> (A02)		<b>No. (A03)</b> 70706
		<b>Page</b> 2/7
		<b>Date</b> 16.11.2016
<b>No. (A07)</b> 4500755696 10.08.2016		
<b>Purchaser (A06)</b> LOGSTOR Polska Sp. Z.o.o. Ul. Handlowa 1 41-807 ZABRZE POLEN		
<b>Product (B01)</b> steel pipe, HFW-HFI-longitudinally welded	<b>Works order No. (A08)</b> 1000033072	
<b>Steel grade and terms of delivery (B02-B03)</b> P235GH TC1 EN 10217-2+A1 (01/05) EN 253 (01/09) Logstor 0001-001/R23, also according Spec. 0001-S005 (27.09.2011) C 0,12% - 0,16 % Si 0,12 - 0,30 % Rm 360 - 500 MPa Rp0,2 235 - 375 MPa Rp0,2/Rm max. 77% für 219,1 x 4,50 mm Rp0,2/Rm max. 75% 00010219698120	<b>Dispatch note No.</b> 0080149108 11.11.2016	
	<b>Inspection (A05)</b> WA	

Ladle analysis (C70-C99)										
Heat No. (B07)	C %	Si %	Mn %	P %	S %	Al %	Cu %	Cr %	Ni %	V %
	0,12 - 0,16	0,12 - 0,30	≤ 1,20	≤ 0,025	≤ 0,020	≥ 0,020	≤ 0,30	≤ 0,30	≤ 0,30	≤ 0,02
325994	0,15	0,18	0,55	0,013	0,002	0,030	0,01	0,03	0,02	0,001
Heat No. (B07)	Ti %	Nb %	Mo %	EV2 2) %	EV3 3) %					
	≤ 0,03	≤ 0,010	≤ 0,08	≤ 0,70	≤ 1,00					
325994	0,003	0,001	0,002	0,06	0,06					
2) EV2: Cr+Cu+Mo+Ni 3) EV3: Cr+Cu+Mo+V+Ni										
Steelmaking process: Basic oxygen process (C70)										
Steel Manufacturer (A01): ThyssenKrupp Steel Europe AG, Kaiser-Wilhelm-Str. 100, 47166 DUISBURG, Germany										
Coil Manufacturer (A01): ThyssenKrupp Steel Europe AG, Kaiser-Wilhelm-Str. 100, 47166 DUISBURG, Germany										

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)



Salzgitter Mannesmann Line Pipe GmbH  
In der Steinwiese 31  
D-57074 Siegen  
(A01)



Salzgitter Mannesmann Line Pipe GmbH · In der Steinwiese 31, 57074 Siegen, Germany · Briefanschrift: Postfach 8101, 57074 Siegen, Germany · Telefon: 0271 691-0 · Telefax: 0271 691-299 · E-Mail: info@smip.eu · Internet: www.smip.eu  
Vorsitzender des Aufsichtsrates: Dr. Clemens Stewing · Geschäftsführung: Jörn Winkels, Vorsitzender · Andreas Betzler  
Sitz der Gesellschaft: Siegen · Registergericht: Amtsgericht Siegen · Registernummer: HRB1435 · Bankverbindung: Commerzbank AG  
Siegen, BLZ 460 400 33, Konto 836 084 400, IBAN DE 68 4604 0033 0836 0844 00, S.W.I.F.T.: COBA DE FF 460  
Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185



<b>Inspection certificate 3.1</b>		<b>No. (A03)</b>	<b>70706</b>
<b>EN 10204:2004-10</b>		<b>Page</b>	<b>3/7</b>
(A02)		<b>Date</b>	<b>16.11.2016</b>
<b>No. (A07)</b>	4500755696 10.08.2016		
<b>Purchaser</b>	LOGSTOR Polska Sp. Z.o.o.		
<b>(A06)</b>	Ul. Handlowa 1		
	41-807 ZABRZE		
	POLEN		
<b>Product</b>	steel pipe, HFW-HFI-longitudinally welded		
<b>(B01)</b>			
<b>Steel grade and terms of delivery</b>	P235GH TC1		
<b>(B02-B03)</b>	EN 10217-2+A1 (01/05)		
	EN 253 (01/09)		
	Logstor 0001-001/R23, also according Spec.		
	0001-S005 (27.09.2011)		
	C 0,12% - 0,16 %		
	Si 0,12 - 0,30 %		
	Rm 360 - 500 MPa		
	Rp0,2 235 - 375 MPa		
	Rp0,2/Rm max. 77%		
	für 219,1 x 4,50 mm		
	Rp0,2/Rm max. 75%		
	00010219698120		
<b>Works order No.</b>	1000033072		
<b>(A08)</b>			
<b>Dispatch note No.</b>	0080149108		
	11.11.2016		
<b>Inspection</b>	WA		
<b>(A05)</b>			

Tensile test (C10-C29)										
acc. EN										
Specimen No. (C00)	Heat No. (B07)	Location (C01)	Direct. (C02)	Cond. (B05)	Type	Yield strength (C11) Rp0,2 MPa	Tensile strength (C12) Rm MPa	Elongation (C13) A5 5) %	Width of specimen mm	Height of specimen mm
		1)	2)	3)	4)	235 - 375	380 - 500	≥23		
1001783037 *)	325994	GW	Q	U	L	277	430	40	20,00	4,35
1) GW: Base material						4) L: Lot testing				
2) Q: transversal						5) A5: Lo=5,65 √So				
3) U: as rolled										
*) The sample product is not part of the delivery										

Pipe list (B01-B99)							
Item	Inspection no. (B07)	Pipe-no. (B07)	Product No. (B07)	Heat No. (B07)	Cond. of delivery (B04)	Length (B09-B11) m	Weight (B12) kgs
001	0	1001783044	06351227	325994	U	12,010	286
001	0	1001783045	06351228	325994	U	12,010	286
001	0	1001783046	06351229	325994	U	12,009	286
001	0	1001783047	06351230	325994	U	12,009	286
001	0	1001783048	06351231	325994	U	12,009	286
001	0	1001783049	06351232	325994	U	12,011	286
001	0	1001783050	06351233	325994	U	12,009	286
001	0	1001783051	06351234	325994	U	12,010	286
001	0	1001783052	06351235	325994	U	12,009	286
		U: as rolled					

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)



**Salzgitter Mannesmann Line Pipe GmbH**  
In der Steinwiese 31  
D-57074 Siegen  
(A01)



Salzgitter Mannesmann Line Pipe GmbH · In der Steinwiese 31, 57074 Siegen, Germany · Briefanschrift: Postfach 21000, 57022 Siegen, Germany · Telefon: 0271 691-0 · Telefax: 0271 691-299 · E-Mail: info@smllp.eu · Internet: www.smllp.eu  
Vorsitzender des Aufsichtsrates: Dr. Clemens Stewing · Geschäftsführung: Jörn Winkels, Vorsitzender · Andreas Betzler  
Sitz der Gesellschaft: Siegen · Registergericht: Amtsgericht Siegen · Registernummer: HRB1435 · Bankverbindung: Commerzbank AG, Siegen, BLZ 460 400 33, Konto 836 084 400, IBAN DE 68 4604 0033 0836 0844 00, S.W.I.F.T.: COBA DE FF 460  
Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185

**Inspection certificate 3.1**
**EN 10204:2004-10**

(A02)

No. (A03)

**70706**

Page

**4/7**

Date

**16.11.2016**

No. (A07) 4500755696 10.08.2016  
Purchaser LOGSTOR Polska Sp. Z.o.o.  
(A06) Ul. Handlowa 1  
41-807 ZABRZE  
POLEN

Product steel pipe, HFW-HFI-longitudinally welded  
(B01)

Works order No. 1000033072  
(A08)

Dispatch note No. 0080149108  
11.11.2016

Inspection  
(A05)

**WA**

Steel grade and terms of delivery P235GH TC1  
(B02-B03) EN 10217-2+A1 (01/05)  
EN 253 (01/09)  
Logstor 0001-001/R23, also according Spec.  
0001-S005 (27.09.2011)  
C 0,12% - 0,16 %  
Si 0,12 - 0,30 %  
Rm 360 - 500 MPa  
Rp0,2 235 - 375 MPa  
Rp0,2/Rm max. 77%  
für 219,1 x 4,50 mm  
Rp0,2/Rm max. 75%  
00010219698120

**Pipe list (B01-B99)**

Item	Inspection no. (B07)	Pipe-no. (B07)	Product No. (B07)	Heat No. (B07)	Cond. of delivery (B04)	Length (B09-B11) m	Weight (B12) kgs
001 0		1001783053	06351236	325994	U	12,009	286
001 0		1001783054	06351237	325994	U	12,010	286
001 0		1001783055	06351238	325994	U	12,009	286
001 0		1001783056	06351239	325994	U	12,010	286
001 0		1001783057	06351240	325994	U	12,008	286
001 0		1001783058	06351241	325994	U	12,009	286
001 0		1001783059	06351242	325994	U	12,010	286
001 0		1001783060	06351243	325994	U	12,008	286
001 0		1001783061	06351244	325994	U	12,012	286
001 0		1001783062	06351245	325994	U	12,011	286
001 0		1001783063	06351246	325994	U	12,011	286
001 0		1001783064	06351247	325994	U	12,009	286
001 0		1001783065	06351248	325994	U	12,011	286
001 0		1001783066	06351249	325994	U	12,012	286
001 0		1001783067	06351250	325994	U	12,011	286
001 0		1001783068	06351251	325994	U	12,010	286
001 0		1001783069	06351252	325994	U	12,009	286
001 0		1001783070	06351253	325994	U	12,010	286
001 0		1001783071	06351301	325994	U	12,009	286
001 0		1001783072	06351302	325994	U	12,008	286
001 0		1001783073	06351303	325994	U	12,008	286
001 0		1001783074	06351304	325994	U	12,009	286
001 0		1001783075	06351305	325994	U	12,008	286
001 0		1001783076	06351306	325994	U	12,007	286
001 0		1001783077	06351307	325994	U	12,008	286
001 0		1001783078	06351308	325994	U	12,006	286
		U: as rolled					

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)

**Salzgitter Mannesmann Line Pipe GmbH**  
In der Steinwiese 31  
D-57074 Siegen  
(A01)

**NUORAŠAS TIKRAS**

Gamybos skyriaus  
viršininkas  
**Raimundas Gudukas**

Salzgitter Mannesmann Line Pipe GmbH · In der Steinwiese 31, 57074 Siegen, Germany · Briefanschrift: Postfach 12 01 52,  
57022 Siegen, Germany · Telefon: 0271 691-0 · Telefax: 0271 691-299 · E-Mail: info@smkp.eu · Internet: www.smlp.eu  
Vorsitzender des Aufsichtsrates: Dr. Clemens Stewing · Geschäftsführung: Jörn Winkels, Vorsitzender · Andreas Betzler  
Sitz der Gesellschaft: Siegen · Registergericht: Amtsgericht Siegen · Registernummer: HRB1435 · Bankverbindung: Commerzbank AG,  
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Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185



<b>Inspection certificate 3.1</b>		<b>No. (A03)</b>	<b>70706</b>
<b>EN 10204:2004-10</b>		<b>Page</b>	<b>5/7</b>
<b>(A02)</b>		<b>Date</b>	<b>16.11.2016</b>
<b>No. (A07)</b>	4500755696 10.08.2016		
<b>Purchaser</b>	LOGSTOR Polska Sp. Z.o.o.		
<b>(A06)</b>	Ul. Handlowa 1		
	41-807 ZABRZE		
	POLEN		
<b>Product</b>	steel pipe, HFW-HFI-longitudinally welded	<b>Works order No.</b>	1000033072
<b>(B01)</b>		<b>(A08)</b>	
<b>Steel grade and terms of delivery</b>	P235GH TC1	<b>Dispatch note No.</b>	0080149108
<b>(B02-B03)</b>	EN 10217-2+A1 (01/05)		11.11.2016
	EN 253 (01/09)	<b>Inspection</b>	WA
	Logstor 0001-001/R23, also according Spec.	<b>(A05)</b>	
	0001-S005 (27.09.2011)		
	C 0,12% - 0,16 %		
	Si 0,12 - 0,30 %		
	Rm 360 - 500 MPa		
	Rp0,2 235 - 375 MPa		
	Rp0,2/Rm max. 77%		
	für 219,1 x 4,50 mm		
	Rp0,2/Rm max. 75%		
	00010219698120		

Pipe list (B01-B99)							
Item	Inspection no. (B07)	Pipe-no. (B07)	Product No. (B07)	Heat No. (B07)	Cond. of delivery (B04)	Length (B09-B11) m	Weight (B12) kgs
001	0	1001783079	06351309	325994	U	12,006	286
001	0	1001783080	06351310	325994	U	12,007	286
001	0	1001783081	06351311	325994	U	12,008	286
001	0	1001783082	06351312	325994	U	12,006	286
001	0	1001783083	06351313	325994	U	12,006	286
001	0	1001783084	06351314	325994	U	12,007	286
001	0	1001783085	06351315	325994	U	12,008	286
001	0	1001783086	06351316	325994	U	12,008	286
001	0	1001783087	06351317	325994	U	12,009	286
001	0	1001783088	06351318	325994	U	12,007	286
001	0	1001783089	06351319	325994	U	12,010	286
001	0	1001783090	06351320	325994	U	12,010	286
001	0	1001783091	06351321	325994	U	12,011	286
001	0	1001783092	06351322	325994	U	12,009	286
001	0	1001783093	06351323	325994	U	12,010	286
001	0	1001783094	06351324	325994	U	12,010	286
001	0	1001783095	06351325	325994	U	12,009	286
001	0	1001783096	06351326	325994	U	12,006	286
001	0	1001783097	06351327	325994	U	12,009	286
001	0	1001783098	06351328	325994	U	12,009	286
001	0	1001783099	06351329	325994	U	12,008	286
001	0	1001783100	06351330	325994	U	12,006	286
001	0	1001783101	06351331	325994	U	12,008	286
001	0	1001783102	06351332	325994	U	12,007	286
001	0	1001783103	06351333	325994	U	12,008	286
001	0	1001783104	06351334	325994	U	12,007	286
		U: as rolled					

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)



**Salzgitter Mannesmann Line Pipe GmbH**  
In der Steinwiese 31  
D-57074 Siegen  
(A01)



NUORAŠAS TIKRAS

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas

Salzgitter Mannesmann Line Pipe GmbH · In der Steinwiese 31, 57074 Siegen, Germany · Briefanschrift: Postfach 12 01 52  
57022 Siegen, Germany · Telefon: 0271 691-0 · Telefax: 0271 691-299 · E-Mail: info@smllp.eu · Internet: www.smllp.eu  
Vorsitzender des Aufsichtsrates: Dr. Clemens Stewing · Geschäftsführung: Jörn Winkels, Vorsitzender · Andreas Betzler  
Sitz der Gesellschaft: Siegen · Registergericht: Amtsgericht Siegen · Registernummer: HRB1435 · Bankverbindung: Commerzbank AG,  
Siegen, BLZ 460 400 33, Konto 836 084 400, IBAN DE 68 4604 0033 0836 0844 00, S.W.I.F.T.: COBA DE FF 460 ·  
Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185

<b>Inspection certificate 3.1</b>		<b>No. (A03)</b>	<b>70706</b>
<b>EN 10204:2004-10</b>		<b>Page</b>	<b>6/7</b>
<b>(A02)</b>		<b>Date</b>	<b>16.11.2016</b>
<b>No. (A07)</b>	4500755696 10.08.2016		
<b>Purchaser</b>	LOGSTOR Polska Sp. Z.o.o.		
<b>(A06)</b>	Ul. Handlowa 1		
	41-807 ZABRZE		
	POLEN		
<b>Product</b>	steel pipe, HFW-HFI-longitudinally welded	<b>Works order No.</b>	1000033072
<b>(B01)</b>		<b>(A08)</b>	
<b>Steel grade and terms of delivery</b>	P235GH TC1	<b>Dispatch note No.</b>	0080149108
<b>(B02-B03)</b>	EN 10217-2+A1 (01/05)	<b>11.11.2016</b>	
	EN 253 (01/09)	<b>Inspection</b>	WA
	Logstor 0001-001/R23, also according Spec.	<b>(A05)</b>	
	0001-S005 (27.09.2011)		
	C 0,12% - 0,16 %		
	Si 0,12 - 0,30 %		
	Rm 360 - 500 MPa		
	Rp0,2 235 - 375 MPa		
	Rp0,2/Rm max. 77%		
	für 219,1 x 4,50 mm		
	Rp0,2/Rm max. 75%		
	00010219698120		

**Pipe list (B01-B99)**

Item	Inspection no. (B07)	Pipe-no. (B07)	Product No. (B07)	Heat No. (B07)	Cond. of delivery (B04)	Length (B09-B11) m	Weight (B12) kgs
001	0	1001783105	06351335	325994	U	12,008	286
001	0	1001783106	06351336	325994	U	12,007	286
001	0	1001783107	06351337	325994	U	12,009	286
001	0	1001783108	06351338	325994	U	12,008	286
001	0	1001783109	06351339	325994	U	12,009	286
001	0	1001783110	06351340	325994	U	12,009	286
001	0	1001783111	06351341	325994	U	12,010	286
001	0	1001783112	06351342	325994	U	12,009	286
001	0	1001783113	06351343	325994	U	12,010	286
001	0	1001783114	06351344	325994	U	12,010	286
001	0	1001783115	06351345	325994	U	12,010	286
001	0	1001783116	06351346	325994	U	12,009	286
001	0	1001783117	06351347	325994	U	12,009	286
001	0	1001783118	06351348	325994	U	12,014	286
001	0	1001783119	06351349	325994	U	12,009	286
001	0	1001783120	06351350	325994	U	12,010	286
001	0	1001783121	06351351	325994	U	12,010	286
<b>Quantity</b> (B08)	78	U: as rolled				936,697	22.308

The welding personal is qualified according to DIN EN ISO 14732

The NDT personal is qualified according to DIN EN 473 /  
DIN EN ISO 9712

Visual and dimensional inspection:

Satisfactory

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)

**Salzgitter Mannesmann Line Pipe GmbH**  
In der Steinwiese 31  
D-57074 Siegen  
(A01)

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Ust-IdNr.: DE 811 151 335 · Steuer-Nr.: 51/200/00033 · EORI-Nr.: DE6411185



**Inspection certificate 3.1**  
**EN 10204:2004-10**

(A02)

No. (A03) **70706**  
Page **7/7**  
Date **16.11.2016**

No. (A07) **4500755696 10.08.2016**  
Purchaser **LOGSTOR Polska Sp. Z.o.o.**  
(A06) **Ul. Handlowa 1**  
**41-807 ZABRZE**  
**POLEN**

Product **steel pipe, HFW-HFI-longitudinally welded**  
(B01)

Works order No. **1000033072**  
(A08)

Dispatch note No. **0080149108**  
**11.11.2016**

Steel grade and terms of delivery **P235GH TC1**  
(B02-B03) **EN 10217-2+A1 (01/05)**  
**EN 253 (01/09)**  
**Logstor 0001-001/R23, also according Spec.**  
**0001-S005 (27.09.2011)**  
**C 0,12% - 0,16 %**  
**Si 0,12 - 0,30 %**  
**Rm 360 - 500 MPa**  
**Rp0,2 235 - 375 MPa**  
**Rp0,2/Rm max. 77%**  
**für 219,1 x 4,50 mm**  
**Rp0,2/Rm max. 75%**  
**00010219698120**

Inspection **WA**  
(A05)

Heat treatment: Weld zone inductive normalized

Flattening test:

Satisfactory

Hydrostatic test  
68 bar, holding time 5 s:

Satisfactory

Ultrasonic testing of weld  
acc. to EN ISO 10893-11:

Satisfactory

**Statement of compliance**

The products have been tested in accordance with the purchase specification and are found to be satisfactory.

Alteration of this testimonial and certification or use for other products is not allowed and are regarded as falsification of documents and will be subjected to criminal jurisdiction.

We hereby certify that the delivered material complies with the terms of the order.  
(Z01)



**Salzgitter Mannesmann Line Pipe GmbH**  
In der Steinwiese 31  
D-57074 Siegen  
(A01)



Inspection Stamp  
(Z03)



Andreas Bludszewski

**Inspection certificate**  
3.1 certificate according to EN 10204

**LOGSTOR**

**Casing Pipes**

Certificate no 101509214  
Page 1 of 1

<b>Manufacture:</b> LOGSTOR POLSKA Sp. z o.o. Handlowa 1 41-807 Zabrze, Poland	<b>Production date</b> 06-08.03.2017
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Description		
Quantity and unit	Dimension x wall thickness	Standard
501x11,8	315x4,1	EN 253:2015

Traceability		
Material type	Casing pipe code	Virgin material Batch no.:
PE 80 - 100	33 1 10 17 2	Cm2078
	33 1 10 17 3	
	33 2 10 17 1	913A040574
	33 2 10 17 2	
	33 2 10 17 3	
	33 3 10 17 1	
	33 3 10 17 2	
PE 80-100	36 3 10 17 2	963A219068

**Geometrical characteristics on casing pipes**  
(Specific test result)

Property	Test method	Frequency	UnitCm2 078	Requirement	Result
Outside diameter	Internal specification	Min. once per 1. hour	mm	225-226,3	226,3
Wall thickness	Internal specification		mm	3,4-3,9	3,6
Corona treatment	Internal specification		dyn/cm	Min. 50	√
Surface condition	Internal specification		-	-	√

**Mechanical and physical characteristics on casing pipes**  
(Non-specific inspection and testing)

Property	Test method	Frequency	Unit	Requirement	Latest Result
Carbon black content	ASTM D1603	Type test, pre production test, Monthly	%	2-3	2,2
MFR (190° C/ 5kg)	ISO 1133		g/10 min	0,2-0,7	0,29
Carbon black dispersion	ISO 18553		-	0,0 – 3,0	2,4
Elongation at break	EN 253, 5.2.2		%	Min. 350	956,56
Thermal stability (OIT, 210° C)	EN 253/EN 728		min.	Min. 20	42
Stress crack resistance	EN 253, 5.2.4	Twice per year	Hours	Min. 300	>300
Impact resistance (Pipe assembly)	EN 253, 5.4.6	Type test	Crack	0 crack/25	0

**Remarks:**

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LOGSTOR certifies that casing pipes for this order are according to EN 253.

	Quality system certified No. CPN 0002369	10.03.2017 Print date	 QA-department
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**Inspection certificate**  
3.1 certificate according to EN 10204

**LOGSTOR**

**Casing Pipes**

Certificate no 101518371  
Page 1 of 1

<b>Manufacture:</b>	<b>Production date</b>
LOGSTOR POLSKA Sp. z o.o. Handlowa 1 41-807 Zabrze, Poland	28-29.03.2017

Description		
Quantity and unit	Dimension x wall thickness	Standard
300x11,8	315x4,1	EN 253:2015

Traceability		
Material type	Casing pipe code	Virgin material Batch no.:
PE 80 - 100	35 2 13 17 1	Cm2078
	35 2 13 17 2	
	35 2 13 17 3	20B12050
	35 3 13 17 1	
	35 3 13 17 2	
PE 80-100	33 2 13 17 1	20B1214

**Geometrical characteristics on casing pipes**  
(Specific test result)

Property	Test method	Frequency	UnitCm2 078	Requirement	Result
Outside diameter	Internal specification	Min. once per 1. hour	mm	313,5-314,5	314,2
Wall thickness	Internal specification		mm	3,4-3,9	3,6
Corona treatment	Internal specification		dyn/cm	Min. 50	√
Surface condition	Internal specification		-	-	√

**Mechanical and physical characteristics on casing pipes**  
(Non-specific inspection and testing)

Property	Test method	Frequency	Unit	Requirement	Latest Result
Carbon black content	ASTM D1603	Type test, pre production test, Monthly	%	2-3	2,2
MFR (190° C/ 5kg)	ISO 1133		g/10 min	0,2-0,7	0,29
Carbon black dispersion	ISO 18553		-	0,0 – 3,0	2,4
Elongation at break	EN 253, 5.2.2		%	Min. 350	956,56
Thermal stability (OIT, 210° C)	EN 253/EN 728		min.	Min. 20	38
Stress crack resistance	EN 253, 5.2.4	Twice per year	Hours	Min. 300	>300
Impact resistance (Pipe assembly)	EN 253, 5.4.6	Type test	Crack	0 crack/25	0

**Remarks:**

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NUORAŠAS TIKRAS

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas

LOGSTOR certifies that casing pipes for this order are according to EN 253.

 Quality system certified No. CPN 0002369	<u>30.03.2017</u> Print date	 QA-department
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