

Patikros sertifikatas 3.1

3.1 Sertifikatas atitinkantis EN 10204

Išanksto izoliuoti vamzdžiai

LOGSTOR

Sertifikato Nr: 764243000010
Puslapis: 1 iš 2

Gamintojas :

LOGSTOR ZABRZE

UL. HANDLOWA 1

ZABRZE 41-807

Pirkėjas :LOGSTOR UAB / Gedimino 5 /
LT-44332 Kaunas**Pristatymo adresas:**UAB Toralis IPS / Isruties 37 /
Vilnius

LOGSTOR užsakymo numeris :	764243	Poz.:	000010	Pirkėjo užsakymo Nr.:	3347/Bielionu str.1
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Produktas :	2000S Pipe - 98011114 0060/0125 012M				
Kiekis:	2	Gamybos data :	24.03.2017		
Sertifikatas:	EN 253	Putplasčio kodas	07000000100002		

Kontrolė ir tyrimai (periodiniai tyrimai)

Savybės	Testo metodas	Dažnis	Vienetas	Reikalavimai	Galutinis rezultatas	
					Viršus	Apačia
Atsparumas gniuždymui	ISO 844	Kartą per savaitę	Mpa	Min. 0,3	Viršus	0,49
					Apačia	0,46
Vandens absorbcija	EN 253	Kartą per savaitę	%	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 sendinant 23°C	EN 253	Mėginio testavimas	Mpa	Min. 0,12	0,34	
Atsparumas kirpimui ašies kryptimi prieš sendinant 140°C	EN 253	Mėginio testavimas	Mpa	Min. 0,08	0,26	
Atsparumas kirpimui ašies kryptimi po sendinimo 23°C	EN 253	Mėginio testavimas	Mpa	Min. 0,12	0,370	
Atsparumas kirpimui ašies kryptimi po sendinimo 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

29.03.2017
Data

Roman Szczepanowski
QA-department

No.: GT-530-00-30

21-04-10

rev. 1

JDA

NUORAŠAS TIKRAS

Gamybos skyriaus
viršininkas
Raimundas Gudukas

Patikros sertifikatas 3.1

3.1 Sertifikatas atitinkantis EN 10204

LOGSTOR

Išanksto izoliuoti vamzdžiai

Sertifikato Nr: 764243000010

Puslapis: 2 iš 2

Specifinis patikrinimas

Logstor Nr	Putos: Šerdies tankis ($\geq 55 \text{ kg/m}^3$)		Išorinis diametras (aa-bb)		Neizoliuotas vamzdžio galas 205-225 mm		Parašas
	Viršus	Apačia	Viršus	Apačia	Viršus	Apačia	
	1	78	74	128	128	213	

Galutinis patikrinimas apima centravimo nukrypimus izoliuoto vamzdžio galuose, neizoliuoto vamzdžio ilgio, nusklembimo, vamzdžio paviršiaus ir gedimo kontrolės laidų patikrą

Gaminio komplekto sąryšio dokumentacija

Logstor Nr.	Plieninis vamzdis			Vamzdžio apvalkalas	
	Partijos/Detales Nr.	Plieno tiekėjas	Sertifikato Nr.	Kodas	Sertifikato Nr.
101532832 - 1	3068197A	ARVEDI TUBI ACCIAIO S.p.A	484642	31207173	101509193
101532832 - 2	3068197A	ARVEDI TUBI ACCIAIO S.p.A	484642	31207171	101509193

Pridedami sertifikatai

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..



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No. CPN
0002369

29.03.2017
Data

Roman Szczepanowski
QA-department

No: GT-530-00-30

21-04-10

rev: 1

JOK

NUORAŠAS TIKRAS

Gamybos skyriaus
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Raimundas Gudukas

Arvedi Tubi Acciaio S.p.A.
 26100 Cremona - Italia
 Via Acquaviva, 3 - Zona Porto Canale
 Tel. +39 0372 4091
 Fax +39 0372 413170

www.arvedi.it

A01
 Cap. Soc. 4.000.000 EUR i.v.
 Società interamente controllata
 da Finarvedi S.p.A.
 R.I. CR 00113630198
 R.E.A. CR 90188
 Mecc. Est. CR 000296
 C.F. e Part. IVA IT 00113630198

A04

Arvedi Tubi Acciaio



Inspection certificate EN 10204/3.1

A02

Number A03	484642	date Z02	14/10/2016
Our order A08	0211192679	/	10
Customer order A07	500746099	date	13/06/2016
Consegna	0221328593		
delivery A10	0000222474	date	14/10/2016

Messrs LOGSTOR POLSKA SP. ZO. O.	A06
UL. HANDLOWA 1	
41-807 ZABRZE	
	PL

Description TUBE FIN CUT NORMALIZED (+N)
Standard LOGSTOR PL EN 10217-2 TC1
Dimensions TEL 60,3X2,9X12000 NL ERWP265GH

Steel grade P265GH
Tubes 358 **MT** 4.296,00 **KG** 16.794,00

Chemical analysis

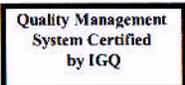
	C	Mn	Si	P	S	Al	Cr	Ni	Mo	Cu	Sn	V	Nb	Ti	B	N
min	0,1200		0,1200			0,0150										
max	0,2200	1,5000	0,3000	0,0300	0,0250		0,3500	0,3500	0,1100	0,3500						
3068197A	0,1553	0,5411	0,1656	0,0119	0,0030	0,0317	0,1059	0,0752	0,0232	0,1617						
3068197A	AL+TI/2						>=0,02			0,0325						
3068197A	CR+CU+MO+NI						<=0,7			0,3660						

Mechanical and technological tests

Works Nr.	Heat	Lot	Tubes	R (MPa)		REH (MPa)		A(%)	Rs/R	Fm (N)
				>= 380	<= 500	>= 210	<= 350	>= 23,0	<= 0,75	
11068926 - 3068197	3068197A		358	439		321		41,08	0,74	

Test	Standard	Required	-	Result
Drift Expanding Test	EN ISO 8493		LOT	1 POSITIVE
Non destructive test	EN 10893-2 + EN 10893-3		%	100 POSITIVE
Dimensional inspection	EN 10217-2 + EN 253		LOT	1 POSITIVE
Marking	EN 10217-2			POSITIVE
test sample direction/loc	EN 10217-2	BODY - LONGITUDINAL		POSITIVE
Flattening test	EN ISO 8492	(0° + 90°)	LOT	1 POSITIVE
Leak tightness test	EN ISO 10893-1		%	100 POSITIVE
Leak tightness test	CICPND/IIS PRS012C/021C	OK		POSITIVE
Leak tightness test	TUV DRG-006	OK		POSITIVE
Visual	EN 10217-2		%	100 POSITIVE

Remarks
D51



Page 1 of 2

** pls see next page **

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Raimundas Gudukas

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26100 Cremona - Italia
Via Acquaviva, 3 - Zona Porto Canale
Tel. +39 0372 4091
Fax +39 0372 413170

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R.E.A. CR 90188
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C.F. e Part. IVA IT 00113630198

A04

Arvedi Tubi Acciaio



Inspection certificate EN 10204/3.1

A02

Number <small>A03</small>	484642	date <small>Z02</small>	14/10/2016
Our order <small>A08</small>	0211192679	/	10
Customer order <small>A07</small>	500746099		
date	13/06/2016		
Consegna	0221328593		
delivery <small>A10</small>	0000222474	date	14/10/2016

Messrs
LOGSTOR POLSKA SP. ZO. O.

UL. HANDLOWA 1

41-807 ZABRZE

PL

A06

 Zakłady Badani i Atestacji "ZETOM" im. Prof. F. Stauba w Katowicach certificate n° 14/15
Authorized representative: Arvedi East Europe Sp.zo.o, Bielsko-Biala, Poland
Conformity Declaration n° 2/AEE, 23.04.2015
EN 10217-2:2002/A1:2005 Welded steel tubes for pressure purposes <i>Electric welded non-alloy steel tubes with specified elevated temperature properties</i>

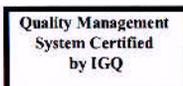
A05 QUALITY DEPARTMENT

Tel. +39 0372 4091

Fax +39 0372 409349

e-mail: controllo.qualita@ata.arvedi.it

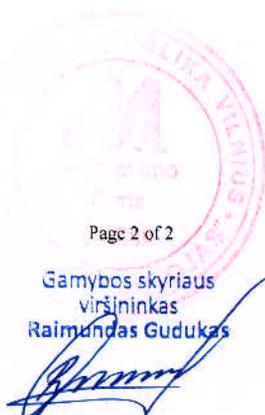
Z01 We hereby certify, that the material described above has been tested and complies with the terms of the order contract. This certificate has been created by a data processing system and does not contain a personal signature but the name and the official address of the appointed department.



Germanischer Lloyd
WZ 844 HH 2



NUORAŠAS TIKRAS



Page 2 of 2

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Arvedi Tubi Acciaio S.p.A.
 26100 Cremona - Italia
 Via Acquaviva, 3 - Zona Porto Canale
 Tel. +39 0372 4091
 Fax +39 0372 413170

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 C.F. e Part. IVA IT 00113630198

A04

Arvedi Tubi Acciaio



Inspection certificate EN 10204/3.1

A02

www.arvedi.it

Number A03	484642	date Z02	14/10/2016
Our order A08	0211192679	/	10
Customer order A07	500746099	date	13/06/2016
Consegna	0221328593		
delivery A10	0000222474	date	14/10/2016

Messrs LOGSTOR POLSKA SP. ZO. O.	A06
UL. HANDLOWA 1	
41-807 ZABRZE	
	PL

Description TUBE FIN CUT NORMALIZED (+N)

Standard LOGSTOR PL EN 10217-2 TC1

Steel grade P265GH

Dimensions TEL 60,3X2,9X12000 NL ERWP265GH

Tubes 358 **MT** 4.296,00 **KG** 16.794,00

B04-B9-B11

B08

B14

B13

Chemical analysis

C71-C92

	C	Mn	Si	P	S	Al	Cr	Ni	Mo	Cu	Sn	V	Nb	Ti	B	N
min	0,1200		0,1200			0,0150										
max	0,2200	1,5000	0,3000	0,0300	0,0250		0,3500	0,3500	0,1100	0,3500						

B07

3068197A	0,1553	0,5411	0,1656	0,0119	0,0030	0,0317	0,1059	0,0752	0,0232	0,1617						
3068197A	AL+TI/2						>=0,02		0,0325							
3068197A	CR+CU+MO+NI						<=0,7	0,3660								

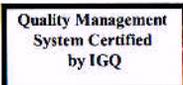
Mechanical and technological tests

C10-C22

Works Nr.	Heat	Lot	Tubes	R (MPa)		REH (MPa)		A(%)	Rs/R	Fm (N)
				>= 380	<= 500	>= 210	<= 350	>= 23,0	<= 0,75	
11068926 - 3068197	3068197A		358	439		321		41,08	0,74	

Test	Standard	Required	-	Result
Drift Expanding Test	EN ISO 8493		LOT	1 POSITIVE
Non destructive test	EN 10893-2 + EN 10893-3		%	100 POSITIVE
Dimensional inspection	EN 10217-2 + EN 253		LOT	1 POSITIVE
Marking	EN 10217-2			POSITIVE
test sample direction/loc	EN 10217-2	BODY - LONGITUDINAL		POSITIVE
Flattening test	EN ISO 8492	(0° + 90°)	LOT	1 POSITIVE
Leak tightness test	EN ISO 10893-1		%	100 POSITIVE
Leak tightness test	CICPND/IIS PRS012C/021C	OK		POSITIVE
Leak tightness test	TUV DRG-006	OK		POSITIVE
Visual	EN 10217-2		%	100 POSITIVE

Remarks
DS1



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** pls see next page **

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Raimondas Gudukas

Arvedi Tubi Acciaio S.p.A.
26100 Cremona - Italia
Via Acquaviva, 3 - Zona Porto Canale
Tel. +39 0372 4091
Fax +39 0372 413170

www.arvedi.it

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R.I. CR 00113630198
R.E.A. CR 90188
Mecc. Est. CR 000296
C.F. e Part. IVA IT 00113630198

^{A04}

Arvedi Tubi Acciaio



Inspection certificate EN 10204/3.1

^{A02}

^{A03} Number	484642	^{Z02} date	14/10/2016
Our order	0211192679	/	10
^{A08} Customer order	500746099		
^{A07} date	13/06/2016		
Consegna	0221328593		
^{A10} delivery	0000222474	date	14/10/2016

^{A06}
Messrs
LOGSTOR POLSKA SP. ZO. O.

UL. HANDLOWA 1

41-807 ZABRZE

PL

 Zakłady Badaw i Atestacji "ZETOM" im. Prof. F. Stauba w Katowicach certificate n° 14/15
Authorized representative: Arvedi East Europe Sp.zo.o, Bielsko-Biala, Poland
Conformity Declaration n° 2/AEE, 23.04.2015
EN 10217-2:2002/A1:2005 Welded steel tubes for pressure purposes <i>Electric welded non-alloy steel tubes with specified elevated temperature properties</i>

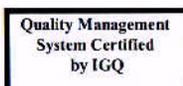
^{A05} **QUALITY DEPARTMENT**

Tel. +39 0372 4091

Fax +39 0372 409349

e-mail: controllo.qualita@ata.arvedi.it

^{Z01} We hereby certify, that the material described above has been tested and complies with the terms of the order contract. This certificate has been created by a data processing system and does not contain a personal signature but the name and the official address of the appointed department.



Germanischer Lloyd
WZ 844 HH 2



NUORASAS TIKRAS

Gamybos skyriaus
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Raimundas Gudukas

Inspection certificate
3.1 certificate according to EN 10204

LOGSTOR

Casing Pipes

Certificate no 101509193
Page 1 of 1

Manufacture: LOGSTOR POLSKA Sp. z o.o. Handlowa 1 41-807 Zabrze, Poland	Production date 14-15.02.2017
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Description

Quantity and unit 500 x 11,7 m	Dimension x wall thickness 125 x 3,0	Standard EN 253:2015
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Traceability

Material type PE 80 - 100	Casing pipe code 31 2 07 17 2 31 2 07 17 3 31 3 07 17 1 31 3 07 17 2	Virgin material Batch no.: 963A219068 CM 1347
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Geometrical characteristics on casing pipes
(Specific test result)

Property	Test method	Frequency	Unit	Requirement	Result
Outside diameter	Internal specification	Min. once per 1. hour	mm	126,7-128,0	127,4
Wall thickness	Internal specification		mm	3,0-3,5	3,3
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	2,1
MFR (190° C/ 5kg)	ISO 1133		g/10 min	0,2-0,7	0,25
Carbon black dispersion	ISO 18553		-	0,0 – 3,0	2,4
Elongation at break	EN 253, 5.2.2		%	Min. 350	1014,41
Thermal stability (OIT, 210° C)	EN 253/EN 728		min.	Min. 20	44,5
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:

--

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



Quality system certified
No. CPN
0002369

17.02.2017
Print date

Svetlana Tomase

QA-department



Inspection certificate
3.1 certificate according to EN 10204

LOGSTOR

Casing Pipes

Certificate no 101509193
Page 1 of 1

Manufacture:	Production date
LOGSTOR POLSKA Sp. z o.o. Handlowa 1 41-807 Zabrze, Poland	14-15.02.2017

Description

Quantity and unit	Dimension x wall thickness	Standard
500 x 11,7 m	125 x 3,0	EN 253:2015

Traceability

Material type	Casing pipe code	Virgin material Batch no.:
PE 80 - 100	31 2 07 17 1	963A219068
	31 2 07 17 2	
	31 2 07 17 3	
	31 3 07 17 1	
	31 3 07 17 2	
		CM 1347

Geometrical characteristics on casing pipes

(Specific test result)

Property	Test method	Frequency	Unit	Requirement	Result
Outside diameter	Internal specification	Min. once per 1. hour	mm	126,7-128,0	127,4
Wall thickness	Internal specification		mm	3,0-3,5	3,3
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	2,1
MFR (190° C/ 5kg)	ISO 1133		g/10 min	0,2-0,7	0,25
Carbon black dispersion	ISO 18553		-	0,0 – 3,0	2,4
Elongation at break	EN 253, 5.2.2		%	Min. 350	1014,41
Thermal stability (OIT, 210° C)	EN 253/EN 728		min.	Min. 20	44,5
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	<u>17.02.2017</u> Print date	 QA-department
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No.: GT-530-00-42

06-06-15

rev.: 0

JOA

NUORAŠAS TIKRAS

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Raimundas Gudukas

