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Logstor Polska Sp. zo.o.  
ul Handlowa 1  
Mikulczyce  
PL-41-807 Zabrze  
Poland

## Annual inspection for EHP-approval

Manufacturer: Logstor Polska Sp. zo.o., Zabrze  
Product: Pipes and fittings to district heating pipes  
Standard: EN 253:2009+A2:2015, EN 448:2015, EN 15698-1:2009 and EN 15698-2:2015  
Certification rules: Euroheat & Power EHP/001, January 2016  
Certificate: 01/07  
Agreement: 210-04-0347  
Date of inspection: 2017-05-16  
Manufacturer's representative: Beata Bondaruk  
Manufacturer Quality Certificate: ISO 9001:2008

At the inspection visit the manufacturer's quality plan and quality surveillance resources were examined in respect of the requirements laid down EN 253:2009+A2:2015, EN 448:2015, EN 15698-1:2009, EN 15698-2:2015 and in the Euroheat & Power Certification Guidelines EHP/001, January 2016. The examination also included the extent and results of the manufacturer's internal quality surveillance activities directed towards the products in question.

The tables below summarise the results of the assessments performed. The corresponding clause in EN 253:2009+A2:2015 and EN 448:2009 are given as reference.

### Service pipe, EN 253:2009+A2:2015

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.2.1	Make, marking delivery specification	GITP-300-01	No remarks
4.2.2 4.2.3	Dimensions	GITP-300-01	No remarks
4.2.4	Finish, surface, etc	GITP-300-01	No remarks

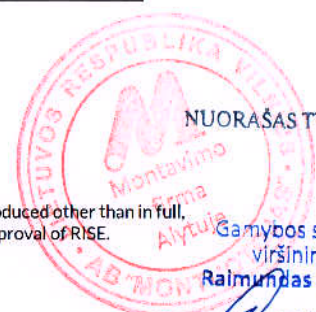
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NUORASAS TIKRAS

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas



**Casing pipe, EN 253:2009+A2:2015**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.3.1	Material	GITP-300-01 0800-001	No remarks
4.3.1.1	Carbon black dispersion	Certificates	No remarks
4.3.1.3	Thermal stability	GITP-330-01, 12	No remarks
4.3.1.4	Use of rework material	GITP-330-01, 12	No remarks
4.3.2.1	Diameter	GITP-330-01, 11	No remarks
4.3.2.2	Wall thickness		
4.3.2.3	Appearance and surface finish	GITP-330-01, 11	No remarks
4.3.2.4	Elongation at break	GITP-330-01, 12	No remarks
4.3.2.6	Stress crack resistance	GITP-330-01, 12	No remarks

**Polyurethane foam insulation, EN 253:2009+A2:2015**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.4.1	Composition Make, marking and delivery specifications	GITP-300-01 GITP-310-01,3	No remarks
4.4.2	Cell structure - Cell size	GITP-310-01,12 GITP-325-01, 21	No remarks
4.4.2	Cell structure – Closed cell content	GITP-310-01,12 GITP-325-01, 21	No remarks
4.4.2	Cell structure – Voids and bubbles	GITP-310-01,12 GITP-325-01, 21	No remarks
4.4.3	Compressive strength	GITP-310-01,12 GITP-325-01, 21	No remarks
4.4.4	Density	GITP-310-01,11 GITP-325-01, 20	No remarks
4.4.5	Water absorption	GITP-310-01,12 GITP-325-01, 21	No remarks


**NUORAŠAS TIKRAS**

Gamybos skyriaus  
viršininkas  
Raimundas Gudukas



**Pipe assembly**  
**Single pipe EN 253:2009+A2:2015**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.5.2 and 4.5.3	Dimension of pipe ends and outside diameter	GITP-310-01, 11	No remarks
4.5.4	Centre line deviation	GITP-310-01, 12	No remarks
4.5.11	Measuring wires EN 14419:2009	GITP-310-01, 11 GI-380-60 GI-380-66	No remarks

**Twin pipe, EN 15698-1:2009**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.5.1	End alignment of forward and return service pipes	GITP-310-01, 11	No remarks
4.5.2	Distance between forward and return service pipes	GITP-310-01, 11	No remarks
4.5.3	Twisting of service pipes	GITP-310-01, 11	No remarks

**Fittings, EN 448:2015**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
<b>4.1</b>	<b>Service pipe</b>		
4.1.1-4.1.9	Dimension of steel parts	GITP-300-01	No remarks
4.1.10.1	Material, make, delivery, specification of steel welding	WPS Certificates	No remarks
4.1.10.4	Inspection of steel welds A	GITP-320-01, 13	No remarks
	B	GITP-320-01, 13	No remarks
	C	GITP-320-01, 13	The manufacturer must continuously check the excel-sheet in order to see that all welders have made enough radiographic tests.
4.1.11	Surface conditions	GITP-325-01, 10	No remarks
<b>4.4</b>	<b>Fitting assembly</b>		
4.4.1-4.4.5	Dimensions of fittings ends and outside diameter	GITP-325-01, 20	No remarks
4.4.3	General requirements on PE welding	PLI-325-61 and PLI-325-65	No remarks
4.4.3.3	Visual appearance	GITP-325-01, 20	No remarks
4.4.3.4	Bending test	GITP-325-01, 5, 6, 8 and 9	No remarks
4.4.4	Leak-tightness of welded PE-casing	GITP-325-01, 20	No remarks
4.4.6	Minimum insulating thickness	GITP-325-01, 21	No remarks
4.4.7	Tolerances on main fitting dimension	GITP-325-01, 14	No remarks
4.5	Surveillance system EN 14419:2009 Annex F	GITP-325-01, 20	No remarks

**Additional items relevant for twin pipe systems only, EN 15698-2:2015**

Clause	Characteristic	Manufacturer's reference doc.	Judgment of documentation, resources and results
4.5.1	End alignment of forward and return service pipes	GITP-325-01, 20	No remarks
4.5.2	Distance between forward and return service pipes	GITP-325-01, 20	No remarks
4.5.3	Twisting of service pipes	GITP-325-01, 20	No remarks

**Conclusion**

The manufacturer's Quality Plan and quality surveillance resources, activities and results fulfil the requirements specified in Euroheat & Power EHP/001, January 2016.

**RISE Research Institutes of Sweden AB  
Energy and circular economy - Pipe Centre**

Performed by

 Signed by: Lars Erlandson  
Date & Time: 2017-06-08 08:56:05 +02:00

Lars Erlandson