



Lintel

Automated laboratory equipment for quality control

Ductilometer. Ductility of Bituminous Materials.

LinteL[®] DB-20-100

PASSPORT

Ductilometer. Ductility of Bituminous Materials.

Lintel® DB-20-100

AIF 2.773.019

__ . __ . 20__

(type)

(modification)

(designation)

(serial number)

(production date)

1 MAIN TECHNICAL DATA AND CHARACTERISTICS

1.1 Automatic apparatus for determining the extensibility of oil bitumen Lintel® DB-20-100 (further - the tester), is intended for determining the extensibility, elasticity, deformation energy of oil bitumen, as well as tensile testing of plastics and polymers in accordance with standards GOST 11505, GOST 33138, GOST R 52056, GOST 11262, ASTM D 113, EN 13398, ASTM D 6084, EN 13703, EN 13587, EN 13589.

1.2 Field of application - laboratories of industrial enterprises and organizations, research institutes.

1.3 The tester is made in the climatic version of the temperate and cold macroclimatic areas group UHL4 according by GOST 15150-69.

1.4 Performance data of the tester given in table 1.

Table 1 – Performance data

Parameter	Unit of measurement	Value
Tap water temperature	°C	from +5 to +15
Tap water consumption, not less	liters /min	3
Number of simultaneously tested samples	pcs	from 1 to 3
Maximum load on each meter	N	300
Range of supported bath temperature ¹	°C	from -10 to +40
Speed of movement of the carriage	cm/min	from 0,1 to 100
Bath volume	liters	17
Voltage	V	from 198 to 242
Frequency	Hz	from 49 to 51
Power consumption, max	W	650
Ambient temperature	°C	from 10 to 35
Relative humidity at +25°C, max	%	80
Barometric pressure	mm Hg	from 680 to 800

1.5 Weight and dimensions of the tester given in table 2.

Table 2 – Weight and dimension

Parameter	Unit of measurement	Value
Dimensions of the tester in working order (width x height x depth)	mm	1750x260x370
Weight of the tester (in the package), max	kg	100
Package volume, max	m ³	0.4

¹ At a temperature of tap water + 10 °C.

1.6 The accuracy parameters of the tester given in table 3.

Table 3 –Accuracy parameters

Indication	Unit of measurement	Value
Force measurement accuracy ²	%	±1
Uneven temperature of the coolant in the bath, max	°C	0,5
Temperature measurement error, max	°C	±0,2
Carriage speed accuracy, max	cm/min	±0,25
Length measurement accuracy	mm	±2
Deviation of form dimensions		meet the standards

1.7 Software Identification features given in table 4.

Table 4 – Software identification features

Sign	Value
Version	3.05
Checksum	ED9E93BF

² Relative to the measured force; for a force less than 30 N, the error is not more than 0.3 N.

2 SCOPE OF SUPPLY

Table 5 – Scope of supply

Designation	Name	Q-ty	Note
AIF 2.773.019	Ductilometer. Ductility of Bituminous Materials. LinteL® DB-20-100	1	
AIF 2.773.019 RE	Operating manual	1	
AIF 2.773.019 PS	Passport	1	
AIF 2.773.019 MA	Certification program and procedure	1	
Supplies			
AIF 6.434.013-03	Form for bitumen EN 13398, ASTM D 113, GOST 11505, GOST R 52056, GOST 33138	6	
AIF 8.610.043-03	Shape plate	6	
AIF 8.120.402	Table for forms with samples	1	
AIF 3.602.004-01	Remote button	1	
AIF 8.207.011-01	Knife	1	
AIF 8.886.014	Coolant filter	1	
AIF 5.886.016	Water softener filter	1	assembled
	Silicone tube 10x2	2	1,5 m
	Quick-release coupling 1/2"	2	
	Clamp 16 mm	1	
	Accessory box	1	

3 ACCEPTANCE CERTIFICATE

Ductilometer. Ductility of Bituminous Materials.

<u>Lintel® DB-20-100</u>		<u>AIF 2.773.019</u>		<u>__ . __ . 20__</u>
(type)	(modification)	(designation)	(serial number)	(production date)

Accord to technical conditions (TU) 28.99.99-053-0015785-2016 and is certified as suitable for operation.

Production date «__» _____ 20 __г.

stamp

QCD Head _____
(Name) (signature)

The tester is packed accordance with requirements of design documentation.

Packing date «__» _____ 20 __г.

Packed by _____
(Name) (signature)

Packed tester accepted by _____
(Name) (signature)

4 MANUFACTURER'S WARRANTY

4.1 The Manufacturer guarantees that the tester meets the technical requirements of TU 28.99.99-053-0015785-2016 if the operating, transportation, and storage conditions specified in the operating manual of AIF 2.773.019 RE are met.

4.2 The Warranty period is 12 months from the date of delivery, but not more than 2,500 hours.

4.3 The service life of the tester is 6 years, but not more than 15,000 hours.

4.4 The manufacturer shall replace or repair the tester that does not meet the requirements of the operating manual during the warranty period at the place of manufacture free of charge.

4.5 The tester is accepted for warranty repair in the manufacturer's packaging with a full set of supplies. Other packaging is allowed to protect the tester from damage and damage during loading, unloading and transportation of the tester.

4.6 Tester Information (model, serial numbers, date of sale, stamp of the seller) specified in the passport must correspond to the product.

4.7 Only BSDO «Neftehimavtomatika» JSC or a person holding a certificate for carrying out these works issued by the above organization has the right to carry out free warranty repairs.

4.8 Replaced defective parts of the product are the property of the manufacturer and are not subject to return.

4.9 If a material or manufacturing defect is found in the tester during the warranty period, the manufacturer will, at its sole discretion, repair or replace the tester with a similar one.

4.10 After the warranty period, the product is repaired on a General basis and in accordance with the rates set by the manufacturer.

4.11 The Warranty does not cover damage, defect, or unsatisfactory performance resulting from:

- failures of the product due to non-compliance with the rules of operation;
- mechanical damages of the tester caused by negligence in the operation of;
- damage caused by careless transportation;
- damage caused by foreign objects, dust, substances, liquids, insects, rodents entering the product;

- damage caused by a natural disaster (thunderstorm, lightning, flood, etc.);
- damage caused by non-compliance with state standards for power supply network parameters;
- Communications port (COM port) failure caused by connecting / disconnecting the peripheral device when the power is turned on;
- any other reason that is not related to the product's manufacturing defect.

4.12 The manufacturer guarantees that the accuracy parameters confirmed during the initial certification after transportation remain unchanged.

5 RECLAMATION PROCEDURE

5.1 Reclamations are made subject to keeping records of malfunctions during operation (see Appendix A). Send the fault record list to the manufacturer with a cover letter.

5.2 To make a reclamation, please contact the following contact:

Contact information:

Phone: +7 (347) 284-28-32

General and Technical Support Requests: lintellab@gmail.com

Website: www.bashnxa.com

APPENDIX A

A SAMPLE LIST OF FAULTS

Ductilometer. Ductility of Bituminous Materials.

Lintel® DB-20-100

AIF 2.773.019

__ . __ . 20__

(type)

(modification)

(designation)

(serial number)

(production date)

FAULT RECORDING AT OPERATION

Fault date Operation mode Load type	Fault type Fault cause	Q-ty of operating hours	Notes

(position)

(Name)

(signature)

(date)

APPENDIX B. SETTING PARAMETERS

Settings are determined during the manufacturing process and are individual for each device. Indication of the settings is necessary to ensure the maintainability of the device.

Filling out the tables is carried out after acceptance of the tester by the Technical Control Department.

Table B1.1 – Tuning coefficients

Parameter	Value
k t bath	
b t bath	
Operating transmission ratio 1	
Operating transmission ratio 2	
Operating transmission ratio 3	
Maximum load cells	
Gain up to ADC	
Software configuration	