

TESTING CENTER OF CABLE PRODUCTS

Autogennaya str. 7, Kharkov, 61099, Ukraine,
 Phone: +38 057 754 52 75
 E-mail: lab@yuzhcable.com.ua

Accredited by:
 National Accreditation Agency of Ukraine - A national accreditation body of Ukraine
 Certificate of Accreditation № 20353 dated January 16, 2024;
 Valid until January 15, 2029

TEST REPORT

Report reference number 33
 Tested by Andrew Konoplev, Alina Shurupova
 Approved by Nikolay Zykov
 Date of issue 11-Feb-26
 Testing laboratory Testing center of cable products
 Address Autogennaya str. 7, Kharkov, 61099, Ukraine,
 Phone: +38 057 754 52 75, E-mail: lab@yuzhcable.com.ua
 Manufacturer YUZH CABLE WORKS, PJSC
 Address Autogennaya str. 7, Kharkov, 61099, Ukraine
 Standard ТУ У 27.3-00214534-066:2013
 Test procedure Tests
 Wire type СИП-3 1x70-20
 Trade mark YUZH CABLE
 Rating(s) Uo/U 20
 Dates of receipt of test item 02-Feb-26
 Dates of performance of tests From 03-Feb-26 to 10-Feb-26
Summary of test results PASS

Ref No.	Tests	Prescribed	Observed	Verdict
1	Electrical tests			
1.1	Resistance of conductors: (Ω /km) - phase conductors	Max. 0,493	0,490	Pass
1.2	Volume resistivity of insulation at 90°C (Ω ·cm)	Min. $1,0 \times 10^{12}$	$8,8 \times 10^{12}$	Pass
1.3	Voltage test after 10 min immersion in water 6 kV/5 min	No breakdown	No breakdown	Pass
2	Non-electrical tests			
2.1	Measurement of dimensions: value: (mm) - diameter of phase conductors	9,45-9,95	9,90	Pass
2.2	Measurement of thickness of insulation: value: (mm) - phase conductors	2,3 _{-0,33}	2,36	Pass

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Ref No.	Tests	Prescribed	Observed	Verdict
2.3	Breaking tension: (kN) phase conductor	Min. 20,6	21,8	Pass
2.4	Mechanical properties of insulation <i>Before ageing:</i>			
	Tensile strength (MPa)	Min. 12,5	18,5	Pass
	Elongation-at-break (%)	Min. 200	545	Pass
	<i>After ageing in air oven:</i>			
	Duration (h) / Temperature (°C)	168 / (135±3)		
	Tensile strength variation (%)	Max. ±25	-7,3	Pass
	Elongation-at-break variation (%)	Max. ±25	-6,5	Pass
	<i>Hot set test</i>			
	Time under load (min)/Temperature (°C)	15 / (200±3)		
	mechanical stress (MPa)	0,2		
Elongation under load (%)	Max. 175	75	Pass	
Permanent elongation after cooling (%)	Max. 15	0	Pass	
<i>Shrinkage test</i>				
Duration (h) / Temperature (°C)	1 / (130±3)			
Shrinkage (%)	Max. 4,0	1,4	Pass	
<i>Water absorption</i>				
Duration (h) / Temperature (°C)	336 / (85±2)			
Increase of mass (mg/cm ²)	Max. 1,0	0,3	Pass	
<i>Pressure test at high temperature</i>				
Duration (h) / Temperature (°C)	4 / (90±2)			
Depth of indentation (%)	Max. 50	28	Pass	
2.5	Test at low temperature Duration (h) / Temperature (°C)	4 / - 40 No cracks	No cracks	Pass

Nikolay Zыkov,
 Head of TCCP

Andrew Konoplev,
 Head of the Laboratory of electrical tests

Alina Shurupova,
 Head of Laboratory of promising developments

