CIOP- PIB ILAC-MRA

Central Institute for Labour Protection - PCA

National Research Institute Polish Accreditation Centre

16 Czerniakowska Street, 00-701 Warsaw, Poland AB038

Personal Protection Unit

Hand and Leg Protection Laboratory

TEST REPORT

ORDER NUMBER:1325/PB/2020/NO

SUBJECT OF THE ORDER: GLOVE TEST

THE ORDERING PARTY: X-TRADE Filip Olszyński

ul. Św. Teresy od Dzieciątka Jezus 178, 91-222 Łódź DATE OF ISSUING THE TEST REPORT: 29.09.2020

Main Contractor: Arkadiusz Szmytke

Authorized by: THE HEAD OF THE HAND AND LEG PROTECTION LABORATORY- dr hab. inż.

Emilia Irzmańska /Ph.D. in engineering/

Approved by: THE HEAD OF THE RESEARCH AND CALIBRATION LABORATORIES TEAM - mgr

Karolina Burza /M.A./

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F01-PORG-11 of 27.04.2020

Number of the order for performing the test: 1325/PB/2020/NO

Glove tests

I. Test Object: Saniform hybrid gloves

Supplier of the test object: X-Trade Filip Olszyński, ul. Świętej Teresa od Dzieciątka Jezus 178, 91-222

Lódź

Register number: 112/2020 A picture of the object to be tested:



II. Date of receiving the object for testing: 15.09.2020III. Date performing laboratory activities: 22.09.2020

- IV. Place of performing laboratory activities: Hand and Leg Protection Laboratory, 48 Wierzbowa Street, 90-133 Łódź
- V. Identification of the method used:
- 1. Leakage testing with the use of air (resistance to permeation) was performed in accordance with PN-EN ISO 374-2:2020-03.

Table 1- Leakage test results with the use of air

Test object designation	Test method	The subsequent number of the glove	Glove size	Air pressur used- kP		Result of the permeation resistance test	Cause of failure to perform the test	
	Leakage testing using air	1	M	2,5	positive	positive		
Saniform		2	L	3,0	positive	positive	Non applicable	
hybrid gloves		3	XL	3,0	positive	positive		
		4	XL	3,0	positive	positive		
Requirements according to PN-EN ISO 374-1:2017-01 norm					Evaluation of conformity / non-conformity with the requirements of PN-EN ISO 374-1:2017-01 standard.			
The result of the visual inspection of the gloves and the result of the air permeation test should be positive					The gloves comply with the standard for air leakage			

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<u>2. Leakage testing with water (penetration resistance) was performed in accordance with PN-EN ISO 374-2:2020-03 standard</u>

Table 2. Leakage test results using water

Test object designation	Test method	The subsequent number of the glove	Glove size	Air pressure used- kPa	the result of a visual check of the gloves	Result of the permeation resistance test	Cause of failure to perform the test	
	Leakage testing using water	1	М		positive	positive	Non applicable	
Saniform hybrid gloves		2	L		positive	positive		
		3	XL		positive	positive		
		4	XL		positive	positive		
Requirements according to PN-EN ISO 374-1:2017-01 norm				Evaluation of conformity / non-conformity with the requirements of PN-EN ISO 374-1:2017-01 standard.				
The result of the visual inspection of the gloves and the result of the water permeation test should be positive				The gloves comply with the standard for water leakage				

3. The glove dimensions were determined in accordance with EN 420+A I :2012 p. 6. 1 standard.

Table 3. Results of determining the dimensions of protective gloves

Test object designation	Size of gloves declared by the manufacturer	The subsequent number of the glove	Measured glove length	Glove length	Measurement uncertainty for k=2 and confidence level approx. 95 %	Measured glove width	Glove width	Measurement uncertainty for k=2 and a confidence level of approximately 95 %
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
	М	1	254	246	+-5	98	97	+-2
		2	246	246		97		
Saniform	L	1	248	246	+- 8	106	105	+-3
hybrid gloves		2	246	240		105	105	
	XL	1	254	252		115	112	
		2	253	253		113	113	
Requirements according to PN-EN 420+A I :2012 standard.						Evaluation of conformity / non- conformity with the requirements of PN-EN 420+A1: 2012 standard.		

Hand size	Minimum glove length for each hand size [mm]	Minimum glove width resulting from the perimeter of the hand with the appropriate size [mm Comment 1)	The gloves do not meet the
6	220	80	requirements of the standard in terms of dimensions
7	230	92	
8	240	105	
9	250	118	inconsistent based on the principle of
10	260	130	simple acceptance*)
11	270	143	
12	280	156	
13	290	169	

Comment 1)

The requirement for the minimum glove width was determined on the basis of the results of CIOP-PIB's own tests, taking into account the requirement for the glove to fit the perimeter of the appropriate size according to EN 420+A1:2012 p. 5.1.1 standard.

*) - In case the measurement result is non-compliant and is below the specified tolerance, which is the minimum length and width of the glove, there is a risk of erroneous rejection of up to 2.5 %.

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4. The determination of the dexterity of the fingers of the hand with the glove on was performed in accordance with PN-EN 420+Al:2012 p. 6.2 standard.

Table 4. Results of the determination of the dexterity of the fingers of the hand with the glove on

Test object		The subsequent	bar diameter [mm]						
designation Glove size		number of the right hand glove	11,0	9,5	8,0	6,5	5,0		
Saniform hybrid gloves	L	1	Х	X	х	Х	X		
nybria gioves		2	х	x x x	X X X	x x x	x x x		
		3	Х						
		4	Х						
Requirem	_	to the PN-EN 42()+A indard.	1:2012		=	non-conformit 20+A1:2012 st	-		
Effectiveness level The smallest diameter of the lift bar mm			f the lifted	The tested gloves meet the standard for fingers dexterity with the glove on - 5th level of effectiveness					
1		11,0							
2		9,5							
3		8,0							
4		6,5							
5		5,0							

- " X" the diameter of the bar, which was lifted 3 times in a row within 30 s was marked
- "-- " the diameter of the bar, which was not lifted 3 times in a row within 30 s was marked

The report contains 4 pages.

Comments:

- 1. The results of the tests refer only to the samples received.
- 2. The report may not be reproduced in part, but only in full, without the written consent of CIOP-PIB.

END OF REPORT

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