STROM

by NOVAX

Rubber Insulating Glove

NOTE: THESE GLOVES ARE INTENDED TO BE USED EXCLUSIVELY FOR ELECTRICAL PURPOSE

Significance of Marking

Brand name

Double triangle: Suitable for live working

No. of the Notified Body

Column for customer to record electrical re-test date.

GBI glove designation

Symbol i for information & GBI manufacture date.

Glove identification number at palm of glove (running number). Glove size at back of glove

PRODUCT CODE	CLASS	AVAILABLE SIZE RANGE	MAXIMUM USE VOLTAGE	
			AC (V, rms)	DC (V)
A BCU-E28Y	00	7 to 12	500	750
A BCU-E36Y	00	7 to 12	500	750
A ACU-E28Y	00 AZC	8 to 11	500	750
A ACU-E36Y	00 AZC	8 to 11	500	750
A UCU-E28Y	0	7 to 12	1 000	1 500
A UCU-E36Y	0	7 to 12	1 000	1 500
A UCU-Q41Y	0	8 to 12	1 000	1 500
A UCU-Q46Y	0	8 to 12	1 000	1 500
A FCU-E28Y	0 AZC	8 to 12	1 000	1 500
A FCU-E36Y	0 AZC	8 to 12	1 000	1 500
A FCU-Q41Y	0 AZC	8 to 12	1 000	1 500
A FCU-Q46Y	0 AZC	8 to 12	1 000	1 500
A XCU-E36Y	1	7 to 12	7 500	11 250
A XCU-Q41Y	1	8 to 12	7 500	11 250
A XCU-Q46Y	1	8 to 12	7 500	11 250
A GCU-E36Y	1 RC	8 to 12	7 500	11 250
A GCU-Q41Y	1 RC	8 to 12	7 500	11 250
A GCU-Q46Y	1 RC	8 to 12	7 500	11 250
A YCU-E36Y	2	8 to 11	17 000	25 500
A YCU-Q41Y	2	8 to 11	17 000	25 500
A YCU-Q46Y	2	8 to 11	17 000	25 500
A PCU-Q36Y	2 RC	9 to 12	17 000	25 500
A PCU-Q41Y	2 RC	9 to 12	17 000	25 500
A PCU-Q46Y	2 RC	9 to 12	17 000	25 500
A MCU-Q36Y	3 RC	8 to 12	26 500	39 750
A MCU-Q41Y	3 RC	8 to 12	26 500	39 750
A MCU-Q46Y	3 RC	8 to 12	26 500	39 750
A ZCU-Q41Y	4 RC	9 to 12	36 000	54 000
A ZCU-Q46Y	4 RC	9 to 12	36 000	54 000

Performance as recorded during the technical tests to check the levels or classes of protection.

INSPEC, SATRA, RAPRA & APAVE TEST REPORT FOR CERTIFICATION

Samples were tested in accordance with EN 60903:2003

Clause	Test	Class	Class 00	Class 00AZC
		Requirements	Test Result	
5.1.2	Shape	Gloves shall be provided with a cuff	Rolled cuff provided	Rolled cuff provided
5.1.3	Dimension	Length as per Table 1	281	369
5.1.4	Thickness	Maximum thickness as per Table 2	0.48	0.92
5.1.5	Workmanship & finish	Glove shall be free on both inner & outer surfaces from harmful irregularities that can be detected by through test and inspection	No harmful physical irregularities	Inner and outer surface free from harmful physical irregularities
5.2.1	Tensile strength & elongation at break	Average tensile strength shall be ≥ 16MPa	19.11	19.11
		Average elongation at break shall be ≥ 600%	704.9	704.9
5.2.2	Tension set	Tension set shall ot exceed 15%	0.63	0.63
5.3	Electrical requirements	See Table 3 : Max. leakage current	2.5 kV / 3 mins	2.5 kV / 3 mins
		See Table 3 : Withstand test	5 kV	5 kV
5.4	Ageing requirements After ageing at 70°C for 168 hours	Lowest value of tensile strength shall be ≥ 80% of unaged value	90.8	90.8
		Tension set shall not exceed 15%	1.25	1.25
		Gloves shall pass the electrical proof test (without moisture conditioning)	2.4 mA	2.4 mA
			2.5 kV / 3 mins	2.5 kV / 3 mins
5.5.1	Low temperature resistance	No tear, break or crack visible on the gloves	None	None
		Each gloves shall pass the electrical proof test (without moisture conditioning)	3.4 mA	3.4 mA
			2.5 kV / 3 mins	2.5 kV / 3 mins
5.5.2	Flame retardancy	Flame shall not reach the refernce line 55mm from the edge within 55 s of flame withdrawal	No flame propagation - sample self extinguished	No flame propagation - sample self extinguished
5.6.1	Acid Resistance	After immersion in sulphuric acid solution: Lowest value of tensile strength shall be > 75% of unaged value	N/A	81.2%
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	2.1 mA
			N/A	2.5 kV / 3 mins
5.6.2	Oil Resistance	After immersion in oil: Lowest value of tensile strength shall be > 50% of unaged value	N/A	N/A
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	N/A
5.6.3	Ozone Resistance After ozone conditioning	Gloves shall exhibit no cracks	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	1.8 mA
			N/A	2.5 kV / 3 mins
5.6.5	Extremely low temperature resistance	No tear, break or crack visible on the gloves	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	1.8 mA
			N/A	2.5 kV / 3 mins
5.7	Marking	As per EN 60903:2003	Pass	Pass
6.1	Insulating gloves - Resistance to mech. puncture	Average resistance to mechanical puncture shall be greater than 18 N/mm	26.67	26.67

Samples were tested in accordance with EN 420:2003 +A1:2009

4.3.2	Determination of pH value	The pH value for all gloves shall be 3.5 < pH < 9.5	6.0	6.0
5.2	Dexterity	As per Table 1	5	5

INSPEC, SATRA, RAPRA & APAVE TEST REPORT FOR CERTIFICATION

Samples were tested in accordance with EN 60903:2003

Clause	Test	Class	Class 0	Class 0AZC
		Requirements	Test Result	
5.1.2	Shape	Gloves shall be provided with a cuff	Rolled cuff provided	Rolled cuff provided
5.1.3	Dimension	Length as per Table 1	355	355
5.1.4	Thickness	Maximum thickness as per Table 2	1.0	1.39
5.1.5	Workmanship & finish	Glove shall be free on both inner & outer surfaces from harmful irregularities that can be detected by through test and inspection	No harmful physical irregularities	No harmful physical irregularities
5.2.1	Tensile strength & elongation at break	Average tensile strength shall be ≥ 16MPa	19.73	19.73
		Average elongation at break shall be ≥ 600%	714.8	714.8
5.2.2	Tension set	Tension set shall ot exceed 15%	1.25	1.25
5.3	Electrical requirements	See Table 3 : Max. leakage current	5 kV / 3 mins	5 kV / 3 mins
		See Table 3 : Withstand test	10 kV	10 kV
5.4	Ageing requirements After ageing at 70°C for 168 hours	Lowest value of tensile strength shall be ≥ 80% of unaged value	97.9	97.9
		Tension set shall not exceed 15%	2.08	2.08
		Gloves shall pass the electrical proof test (without moisture conditioning)	3.4 mA	3.4 mA
			5 kV / 3 mins	5 kV / 3 mins
5.5.1	Low temperature resistance	No tear, break or crack visible on the gloves	None	None
		Each gloves shall pass the electrical proof test (without moisture conditioning)	3.8 mA	3.8 mA
			5 kV / 3 mins	5 kV / 3 mins
5.5.2	Flame retardancy	Flame shall not reach the refernce line 55mm from the edge within 55 s of flame withdrawal	Flame propagation does not reach ref. line within 55 s	Flame propagation does not reach ref. line within 55 s
5.6.1	Acid Resistance	After immersion in sulphuric acid solution: Lowest value of tensile strength shall be > 75% of unaged value	N/A	89.9
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	3.1 mA
			N/A	5 kV / 3 mins
5.6.2	Oil Resistance	After immersion in oil: Lowest value of tensile strength shall be > 50% of unaged value	N/A	N/A
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	N/A
5.6.3	Ozone Resistance After ozone conditioning:	Gloves shall exhibit no cracks	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	2.6 mA
			N/A	5 kV / 3 mins
5.6.5	Extremely low temperature resistance	No tear, break or crack visible on the gloves	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	2.7 mA
			N/A	5 kV / 3 mins
5.7	Marking	As per EN 60903:2003	Pass	Pass
6.1	Insulating gloves - Resistance to mech. puncture	Average resistance to mechanical puncture shall be greater than 18 N/mm	31	31

Samples were tested in accordance with EN 420:2003 +A1:2009

4.3.2	Determination of pH value	The pH value for all gloves shall be 3.5 < pH < 9.5	6.0	6.0
5.2	Dexterity	As per Table 1	5	3

INSPEC, SATRA, RAPRA & APAVE TEST REPORT FOR CERTIFICATION

Samples were tested in accordance with EN 60903:2003

Clause	Test	Class	Class 1	Class 1RC
		Requirements	Test Result	Test Result
5.1.2	Shape	Gloves shall be provided with a cuff	Rolled cuff provided	Rolled cuff provided
5.1.3	Dimension	Length as per Table 1	364	368
5.1.4	Thickness	Maximum thickness as per Table 2	1.40	2.00
5.1.5	Workmanship & finish	Glove shall be free on both inner & outer surfaces from harmful irregularities that can be detected by through test and inspection	Inner and outer surface free from harmful physical irregularities	Inner and outer surface free from harmful physical irregularities
5.2.1	Tensile strength & elongation at break	Average tensile strength shall be ≥ 16MPa	19.45	21.60
		Average elongation at break shall be ≥ 600%	939.5	871.0
5.2.2	Tension set	Tension set shall ot exceed 15%	1.4	1.4
5.3	Electrical requirements	See Table 3 : Max. leakage current	10 kV / 3 mins	10 kV / 3 mins
		See Table 3 : Withstand test	20 kV	20 kV
5.4	Ageing requirements After ageing at 70°C for 168 hours	Lowest value of tensile strength shall be ≥ 80% of unaged value	97.1	85.6
		Tension set shall not exceed 15%	0.9	1.7
		Gloves shall pass the electrical proof test (without moisture conditioning)	4.9 mA	3.6 mA
			10 kV / 3 mins	10 kV / 3 mins
5.5.1	Low temperature resistance	No tear, break or crack visible on the gloves	None	None
		Each gloves shall pass the electrical proof test (without moisture conditioning)	4.9 mA	4.0 mA
			10 kV / 3 mins	10 kV / 3 mins
5.5.2	Flame retardancy	Flame shall not reach the refernce line 55mm from the edge within 55 s of flame withdrawal	Flame reached 55 mm mark 68.0 s	Flame reached 55 mm mark 68.0 s
5.6.1	Acid Resistance	After immersion in sulphuric acid solution: Lowest value of tensile strength shall be > 75% of unaged value	N/A	89.0%
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	4.0 mA
			N/A	10 kV / 3 mins
5.6.2	Oil Resistance	After immersion in oil: Lowest value of tensile strength shall be > 50% of unaged value	N/A	76.0%
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	3.8 mA
				10 kV / 3 mins
5.6.3	Ozone Resistance After ozone conditioning:	Gloves shall exhibit no cracks	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	3.7 mA
			N/A	10 kV / 3 mins
5.6.5	Extremely low temperature resistance	No tear, break or crack visible on the gloves	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	4.0 mA
			N/A	10 kV / 3 mins
5.7	Marking	As per EN 60903:2003	Pass	Pass
6.1	Insulating gloves - Resistance to mech. puncture	Average resistance to mechanical puncture shall be greater than 18 N/mm	48.6	48.6

Samples were tested in accordance with EN 420:2003 +A1:2009

4.3.2	Determination of pH value	The pH value for all gloves shall be $3.5 < pH < 9.5$	6.0	6.0
5.2	Dexterity	As per Table 1	3	1

INSPEC, SATRA, RAPRA & APAVE TEST REPORT FOR CERTIFICATION

Samples were tested in accordance with EN 60903:2003

Clause	Test	Class	Class 2	Class 2RC
		Requirements	Test Result	Test Result
5.1.2	Shape	Gloves shall be provided with a cuff	Rolled cuff provided	Rolled cuff provided
5.1.3	Dimension	Length as per Table 1	360	360
5.1.4	Thickness	Maximum thickness as per Table 2	2.3	2.9
5.1.5	Workmanship & finish	Glove shall be free on both inner & outer surfaces from harmful irregularities that can be detected by through test and inspection	Inner and outer surface free from harmful physical irregularities	Inner and outer surface free from harmful physical irregularities
5.2.1	Tensile strength & elongation at break	Average tensile strength shall be ≥ 16MPa	17.03	28.4
		Average elongation at break shall be ≥ 600%	773.9	705
5.2.2	Tension set	Tension set shall ot exceed 15%	1.1	N/A
5.3	Electrical requirements	See Table 3 : Max. leakage current	20 kV / 3 mins	20 kV / 3 mins
		See Table 3 : Withstand test	30 kV	30 kV
5.4	Ageing requirements After ageing at 70°C for 168 hours	Lowest value of tensile strength shall be ≥ 80% of unaged value	94.7	N/A
		Tension set shall not exceed 15%	0.7	N/A
		Gloves shall pass the electrical proof test (without moisture conditioning)	5.9 mA	N/A
			20 kV / 3 mins	N/A
5.5.1	Low temperature resistance	No tear, break or crack visible on the gloves	None	N/A
		Each gloves shall pass the electrical proof test (without moisture conditioning)	6.9 mA	N/A
			20 kV / 3 mins	N/A
5.5.2	Flame retardancy	Flame shall not reach the refernce line 55mm from the edge within 55 s of flame withdrawal	Flame reached 55 mm mark after 60.2 s	Flame reached 55 mm mark after 56.5 s
5.6.1	Acid Resistance	After immersion in sulphuric acid solution: Lowest value of tensile strength shall be > 75% of unaged value	N/A	96.3%
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	5.4 mA
			N/A	20 kV / 3 mins
5.6.2	Oil Resistance	After immersion in oil: Lowest value of tensile strength shall be > 50% of unaged value	N/A	75.7%
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	5.4 mA
				20 kV / 3 mins
5.6.3	Ozone Resistance After ozone conditioning:	Gloves shall exhibit no cracks	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	20 kV / 3 mins
5.6.5	Extremely low temperature resistance	No tear, break or crack visible on the gloves	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	N/A	4.9 mA
			N/A	20 kV / 3 mins
5.7	Marking	As per EN 60903:2003	Pass	Pass
6.1	Insulating gloves - Resistance to mech. puncture	Average resistance to mechanical puncture shall be greater than 18 N/mm	56.8	N/A

Samples were tested in accordance with EN 420:2003 +A1:2009 *

4.3.2	Determination of pH value	The pH value for all gloves shall be 3.5 < pH < 9.5	6.0	6.0
5.2	Dexterity	As per Table 1	2	0

INSPEC, SATRA, RAPRA & APAVE TEST REPORT FOR CERTIFICATION

Samples were tested in accordance with EN 60903:2003

Clause	Test	Class	Class 3RC	Class 4RC
		Requirements	Test Result	Test Result
5.1.2	Shape	Gloves shall be provided with a cuff	Rolled cuff provided	Rolled cuff provided
5.1.3	Dimension	Length as per Table 1	460mm	460mm
5.1.4	Thickness	Maximum thickness as per Table 2	3.5mm	4.2mm
5.1.5	Workmanship & finish	Glove shall be free on both inner & outer surfaces from harmful irregularities that can be detected by through test and inspection	No harmful physical irregularities found on Inner or outer surface	No harmful physical irregularities found on Inner or outer surface
5.2.1	Tensile strength & elongation at break	Average tensile strength shall be ≥ 16MPa	24.1	24.4
		Average elongation at break shall be ≥ 600%	626	712
5.2.2	Tension set	Tension set shall ot exceed 15%	1.4	0.8
5.3	Electrical requirements	See Table 3 : Max. leakage current	30 kV / 3 mins	40 kV / 3 mins
		See Table 3 : Withstand test	40 kV	50 kV
5.4	Ageing requirements After ageing at 70°C for 168 hours	Lowest value of tensile strength shall be ≥ 80% of unaged value	95.0%	85.4%
		Tension set shall not exceed 15%	0.8	1.4
		Gloves shall pass the electrical proof test (without moisture conditioning)	9.3 mA	8.7 mA
			30 kV / 3 mins	40 kV / 3 mins
5.5.1	Low temperature resistance	No tear, break or crack visible on the gloves	N/A	N/A
		Each gloves shall pass the electrical proof test (without moisture conditioning)	N/A	N/A
5.5.2	Flame retardancy	Flame shall not reach the refernce line 55mm from the edge within 55 s of flame withdrawal	Flame did not reach 55 mm mark	Flame reached 55 mm mark after 107 s
5.6.1	Acid Resistance	After immersion in sulphuric acid solution: Lowest value of tensile strength shall be > 75% of unaged value	97.7%	75.5%
		Gloves shall pass the electrical proof test (without moisture conditioning)	9.8 mA	8.0 mA
			30 kV / 3 mins	40 kV / 3 mins
5.6.2	Oil Resistance	After immersion in oil: Lowest value of tensile strength shall be > 50% of unaged value	111.9%	91.1%
		Gloves shall pass the electrical proof test (without moisture conditioning)	7.8 mA	9.0 mA
			30 kV / 3 mins	40 kV / 3 mins
5.6.3	Ozone Resistance After ozone conditioning:	Gloves shall exhibit no cracks	None	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	9.8 mA	8.1 mA
			30 kV / 3 mins	40 kV / 3 mins
5.6.5	Extremely low temperature resistance	No tear, break or crack visible on the gloves	N/A	None
		Gloves shall pass the electrical proof test (without moisture conditioning)	9.8 mA	8.7 mA
			30 kV / 3 mins	40 kV / 3 mins
5.7	Marking	As per EN 60903:2003	Pass	Pass
6.1	Insulating gloves - Resistance to mech. puncture	Average resistance to mechanical puncture shall be greater than 18 N/mm	> 51.8	> 49.4

Samples were tested in accordance with EN 420:2003 +A1:2009

4.3.2	Determination of pH value	The pH value for all gloves shall be 3.5 < pH < 9.5	6.0	6.0
5.2	Dexterity	As per Table 1	0	0