PROTECTIVE INDUSTRIAL PRODUCTS



FREQUENTLY ASKED QUESTIONS ON RUBBER ELECTRICAL INSULATING GLOVES

NOVAX®
ELECTRICAL SAFETY

PRODUCT DESIGN FEATURES

Why should I use or sell the Novax® brand of insulating gloves?

Novax® insulating gloves are manufactured in Malaysia using an environmentally friendly aqueous dip process. The natural rubber raw material is kept in its natural aqueous state, as opposed to the solvent dip process used by other manufacturers which uses extensive amounts of volatile organic compounds (VOC's). Our gloves retain more of the beneficial physical properties of natural rubber which is demonstrated in the physical property tests required in the ASTM D120 testing requirements.

- **Ergonomic Design**
  - Hand at a Natural Rest Position
    - Wrist is straight, not cocked back at an unnatural 30 degree angle
    - Fingers are aligned in natural position, not spread out.
    - Fingers are slightly curved forward.
  - Improved Dexterity
    - Low Modulus Formulation
- **Cuff flare is angled between that of Salisbury and White Rubber products**
  - Improves air flow and comfort (in warm climates)
- **Exceed ASTM D120 requirements**
  - Physical test results
  - Electrical test results

Are all gloves manufactured to the same dimensions?

ASTM requires gloves to be manufactured within similar hand dimensions, plus or minus ½" per measurement. The allowance provides manufacturers the opportunity to select a set of unique dimensions that fit the preferred dimensions of each manufacturer.

What are your gloves made from?

Novax Insulating gloves are manufactured from natural rubber.



SELECTING A GLOVE

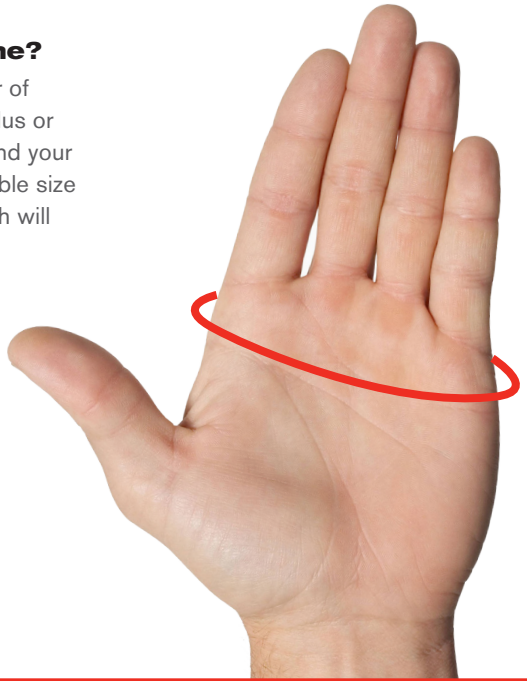
How do I know what glove to use?

First you should determine the maximum voltage that you will be exposed to during your work. Once you have determined the risk, you can use the chart below to determine the appropriate class of glove that will provide you the protection required to compete your job safely. Each class of gloves is clearly marked with the maximum use voltage on the permanent color coded label.

CLASS	TEST AC VOLTS	USE AC VOLTS	USE DC VOLTS	LABEL COLOR	LABEL IMAGE
00	2,500	500	750	Beige	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 00 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 500V AC
0	5,000	1,000	1,500	Red	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 0 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 1000V AC
1	10,000	7,500	11,250	White	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 1 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 7500V AC
2	20,000	17,000	25,500	Yellow	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 2 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 17000V AC
3	30,000	26,500	39,750	Green	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 3 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 26500V AC
4	40,000	36,000	54,000	Orange	10 NOVAX™ by G.B. INDUSTRIES ANSI / ASTM CLASS 4 MADE IN MALAYSIA D120 TYPE I MAX USE VOLT 36000V AC

How do I determine what size of glove is right for me?

ASTM D120 section 8.2 provides the measurements of the diameter of the palm for manufacturers, measured at the midpoint of the palm, plus or minus ½". Measure your hand by wrapping the tape all the way around your palm at the point shown to the right. This would equate to the probable size of glove to select. Personal preference for tightness and finger length will ultimately determine the size that you are most comfortable wearing.



STANDARDS

What standards do your gloves meet?

Novax® Industrial branded gloves are manufactured to meet or exceed the requirements of the current version of ASTM D120, the standard specification for Industrial Rubber Insulating Gloves.

PRODUCT LINE

What products are offered?



STRAIGHT CUFF

Class	Length	Sizes	Colors Available
00	11"	7-12	Black, Orange, Yellow or Red-*(only in sizes 8-11)*
00	14"	7-12	Black or Yellow
0	11"	7-12	Black, Black/Orange, Orange, Yellow or Red-*(only in sizes 8-11)*
0	14"	7-12	Black or Yellow
1	14"	7-12	Black, Black/Orange, Orange or Red*-*(only in sizes 7-11)*
1	16"	8-12	Black or Black/Orange
2	14"	7-12	Black, Black/Orange, Orange, Yellow or Black/Red*-*(only in sizes 8-12)*
2	16"	8-12	Black/Orange or Black/Yellow
2	18"	8-12	Black/Orange or Black/Yellow**
3	16"	8-12	Black or Black/Orange-*(only in sizes 9-12)*
3	18"	9-12	Black or Black/Orange
4	16"	9-12	Black*, Black/Orange, or Black/Red*
4	18"	9-12	Black*, Black/Orange



BELL CUFF

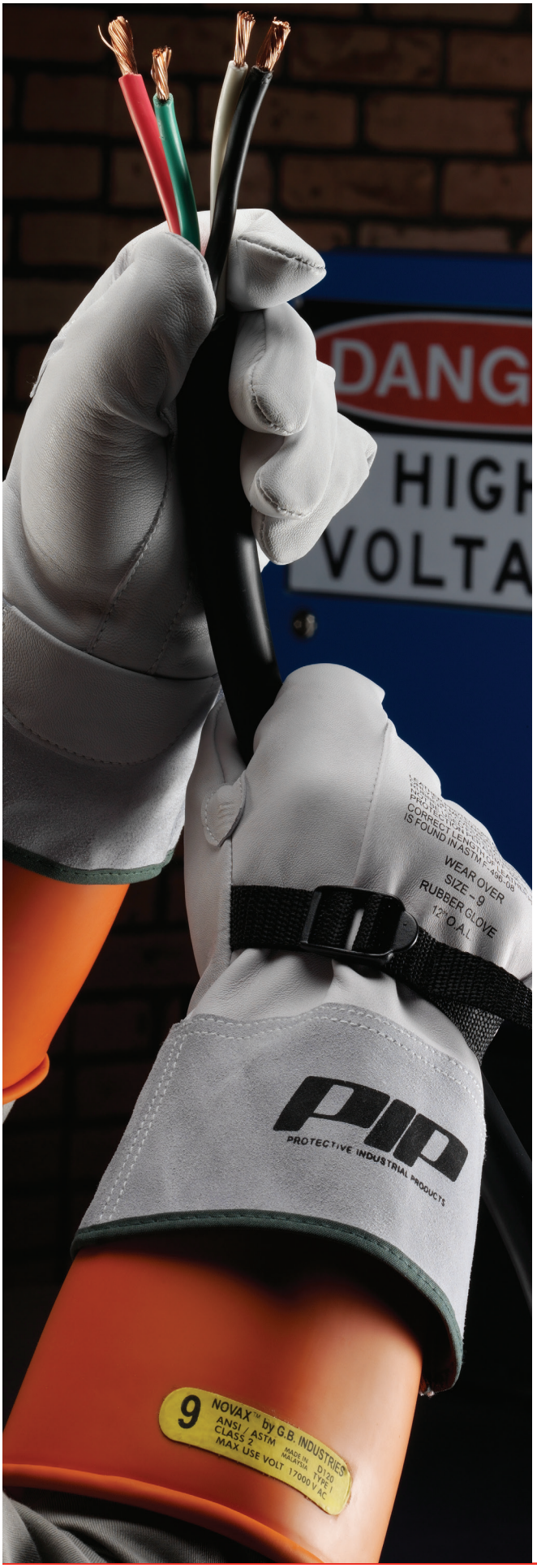
Class	Length	Sizes	Colors Available
2	16"	8-12	Black/Orange, Black/Yellow** or Black/Red**
2	18"	8-12	Black/Orange, Black/Yellow or Black/Red
3	16"	9-12	Black/Orange
3	18"	9-12	Black/Orange
4	16"	9-12	Black/Orange
4	18"	9-12	Black/Orange



CONTOUR CUFF

Class	Length	Sizes	Colors Available
1	18"	8-12	Black/Orange
2	18"	8-12	Black**, Black/Orange, Black/Yellow** or Black/Red
3	18"	8-12	Black/Orange or Black/Yellow**-*(only in sizes 9-12)*
4	18"	9-12	Black/Orange, Black/Yellow** or Black/Red**-*(only in sizes 9-11)*

**Half Sizes Available *Non-Stock Item



LEATHER PROTECTORS

What size of leather protector should I use?

Leather protectors should always be worn with rubber insulating gloves. ASTM F696 provides the specification for the manufacture of Leather Protectors. Leather protectors are sized to be worn on the same size rubber insulating glove so if you wear a size 10 rubber insulating glove you should order a size 10 leather protector.

When should leather protectors be used?

Under most circumstances leather protectors should be worn unless the dexterity required to perform the task requires that rubber insulating gloves are worn alone. OSHA has specific requirements associated with the use of protectors and the end-user is responsible to make sure they are in compliance. But remember that a leather protector alone does not provide any electrical insulating protection.

What length of leather protector should I use?

In the ASTM standards specifying the characteristics of the protectors there are regulations on how much of the rubber glove can be exposed at the top (near the cuff.) Due to this certain leather protectors are used with specific classes of rubber gloves according to their length. The protectors are not interchangeable with the different classes of rubber gloves.

- **Class 00 & 0** should have no less than a ½" gap between the top of the glove to the top of the leather protector.
- **Class 1** should have no less than a 1" gap between the top of the glove to the top of the leather protector.
- **Class 2** should have no less than a 2" gap between the top of the glove to the top of the leather protector.
- **Class 3** should have no less than a 3" gap between the top of the glove to the top of the leather protector.
- **Class 4** should have no less than a 4" gap between the top of the glove to the top of the leather protector.

Do leather protectors need to be marked with any date?

There are no provisions in the standards for marking leather protectors and so none is required.

What products are offered?

Class	Length	Sizes	Description
00-0	10"	7-12	Goatskin Driver Cuff
00-0	13"	7-12	Goatskin Gauntlet Cuff
1-2	12"	7-12	Cowhide Gauntlet Cuff
1-2	12"	7-12	Goatskin Gauntlet Cuff
1-4	14"	8-12	Goatskin Gauntlet Cuff
3-4	14"	9-12	Goatskin Gauntlet Cuff

TESTING

How are Novax® gloves electrically tested?

The manufacturer of Novax® gloves electrically tests every glove prior to shipment. Each "batch" of gloves is also subjected to a battery of physical and electrical tests to insure that the gloves meet the D120 Standards. It is the responsibility of the employer to insure that the gloves have passed the required electrical test within the specified time.

How long does the user have to put new gloves into service?

The user has 12 months from the test date to put new gloves into service. New (gloves that have never been issued for use) may be retested and the user has 12 months from that date to put them into service.

When should rubber insulating gloves be retested?

There are two standards that prescribe test intervals:

- OSHA 1910.137 – Must be electrically tested before first issue and every six months thereafter
- OSHA 1910.268 (Tele-com) – Natural rubber insulating gloves must be electrically tested before first issue, twelve months after first issue and every 9 months thereafter
- Any un-issued glove that has not been tested within twelve months must be re-tested before issue.

Do we know of any labs that can recertify gloves?

Please contact one of the following for information:

Matthew Smith
Product Manager, Technical Products
mdsmith@pipusa.com

Ben Bird
National Account Manager
bbird@pipusa.com

How are the Novax® gloves "marked" with the factory test date?

Each pair is marked with the test date of the initial test completed at the factory. Each glove has an individual serial number that provides traceability back to the factory test.



Does OSHA require the test date to be stamped on the glove?

OSHA regulation 1910.137(b)(2)(xii) states the employer shall certify that equipment has been tested in accordance with the requirements of paragraphs (b)(2)(viii), (b)(2)(ix), and (b)(2)(xi) of this section. The certification shall identify the equipment that passed the test and the date it was tested. Note: Marking of equipment and entering the results of the tests and the dates of testing onto logs are two acceptable means of meeting this requirement.

When should rubber insulating gloves be inspected by the user?

Rubber insulating gloves should be visually inspected before each day's use and after any action that could be expected to cause damage to the glove. Look for signs of physical damage (punctures, cuts, nicks, cracks, scratches and abrasions), chemical deterioration (swelling softness, hardening stickiness), ozone deteriorations, and other irregularities. Air-expand Type gloves no more than twice their normal size. Expansion stretches the rubber, making cuts ozone damage and abrasions easy to detect. Listen for escaping air to detect holes. If a portable inflator is not available, manually inflate the glove by rolling the cuff tightly to trap air inside then apply pressure to areas of the glove to listen for escaping air. Repeat procedure with glove turned inside out. More detailed inspection procedures and defect illustrations are described in ASTM F1236 (Standard Guide for Visual Inspection of Electrical Protective Rubber Products).

WARRANTY

What is our product warranty on Novax gloves?

Our warranties are in compliance with ASTM D120. It reads: 12.1 The manufacturer or supplier shall replace, without charge to the purchaser, unused gloves which, at any time within a period of nine (9) months from date of initial delivery of shipment to the purchaser or his designee, fail to pass the tests in this specification. This guarantee will be binding on the manufacturer or supplier only if the gloves have been properly stored and have not been subjected to more than an original acceptance test and one retest. 12.2 Any acceptance test made by the purchaser, or the purchaser's designee, shall be performed within the first two (2) months of the guarantee period unless otherwise specified. NOTE 3 – Proper storage means that gloves are stored right side out, not distorted and not stored directly above or in proximity to steam pipes, radiators, or other sources of artificial heat, or exposed to direct sunlight or other sources of ozone. It is desirable that the ambient storage temperature shall not exceed 35°C (95°F).

CLEANING AND STORAGE

How should rubber insulating gloves be cleaned and stored?

Wash in warm water (85°F) with mild detergent, disinfect with a small amount of chlorine bleach. Air or tumble dry at low heat (165°F). Gloves may be dusted lightly with talc to reduce tackiness. Gloves should be stored in a glove bag, finger tips up, hung and not laid flat. Leather protectors should be removed before storage. Never fold gloves. Store in as dry and cool (95°F maximum) location as possible, away from sources of ozone and direct sunlight.

SAMPLE POLICY

What is our sample policy?

Distributors can buy samples for their customers at 30% off regular distributor price. The distributor must identify the end-user on the sample order to obtain this consideration.

MISCELLANEOUS QUESTIONS

What does Type I and Type II mean?

Type I gloves are not considered to be resistant to ozone while Type II gloves are considered to be resistant to ozone. Type I gloves are generally made from natural rubber and Type II gloves are generally made from a synthetic rubber such as EPDM (ethylene propylene diene monomer). Novax gloves are fairly ozone resistant however they will not compare with the level of ozone resistance found in gloves made from EPDM of some other synthetic materials.

Who uses rubber electrical insulating gloves?

The users include utility linemen and telecommunications technicians obviously. Our targets however are more in line with our industrial work glove markets. The users in commercial and construction settings include:

- Maintenance Technicians working in Amusement Parks, Hospitals, Water Plants, Mfg. Plants, Office Buildings and Schools
- Electricians
- Maintenance & Electrical Supervisors
- Machine Operators, Maintenance Millwrights & Mechanics
- HVAC Technicians
- Transportation – primarily rail
- Elevator installers and repairers
- Field Service Technicians
- Automotive Technicians

Who is ASTM?

Originally known as the American Society for Testing and Materials, ASTM International is one of the largest voluntary standards development organizations in the world-a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ASTM International standards have an important role in the information infrastructure that guides design, manufacturing and trade in the global economy.



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