

Esteem[®] Tru-Blu[™] Stretchy Nitrile Exam Gloves

Hand Care Solutions



- **Micro-textured glove for a great grip even when wet**
- **Provides greater tactile sensitivity while maintaining film strength and barrier protection**
- **Tested for use with chemotherapy agents**
- **Demonstrated permeation resistance to various commonly used hospital and laboratory chemicals**

Length and Thickness

Minimum length measured from the tip of the middle finger to the cuff.

Average Length (in./mm)	Cuff Thickness (mm/mil)	Palm Thickness (mm/mil)	Finger Thickness (mm/mil)
9.7/246	0.08/3.15	0.10/3.94	0.13/5.12

Physical Properties

Meets or exceeds ASTM D6319, Standard Specification for Nitrile Examination Gloves for Medical Application, for Physical Properties after aging.

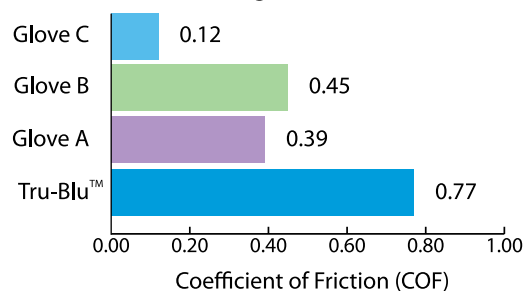
	ASTM Limit	Cardinal Health Average
Tensile Strength	≥14 MPa	19 MPa
Ultimate Elongation	≥400%	533%

Barrier Protection

All gloves must meet a certain Acceptable Quality Level (AQL) as established by the Food and Drug Administration (FDA). This refers to their freedom from holes and their subsequent level of barrier protection. Gloves with a lower actual AQL will have fewer barrier defects. Cardinal Health's internal requirements are significantly more stringent than FDA and ASTM requirements.

	FDA	ASTM D6319 Nitrile Exam Gloves	Cardinal Health Exam Gloves
AQL Limit	2.5	2.5	1.5

Glove Outside Finger COF – WET Higher is Better



Grip COF tested per ASTM D1894 Standard Test Method for Static and Kinetic Coefficient of Friction of Plastic Film and Sheeting.

Chemical and Chemotherapy Drug Resistance

The Esteem[®] brand Tru-Blu[™] stretchy nitrile exam gloves have been tested per ASTM F739, Standard Test Method for Resistance of Protective Clothing Materials to Permeation by Liquid or Gases Under Conditions of Continuous Contact for resistance to permeation by the hospital and laboratory chemicals. The results represent the average normalized breakthrough time in minutes. These gloves have been tested per ASTM D6978, Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs for resistance to permeation by the chemotherapy agents listed. The results represent the minimum breakthrough time in minutes (the maximum testing time is 240 minutes).

Common Hospital and Laboratory Chemicals

The chart below lists lab chemical permeation resistance; average normalized breakthrough time in minutes, 0.1µg/cm²/min. (ASTM F 739)

Chemical Name	Time
Ethidium bromide (10mg/mL)	>480
Glutaraldehyde, 2.4%	240
Formaldehyde, 3.7% (tested as formulin, 10%)	160
Methanol, 1.5%, (tested as formulin, 10%)	>480
Sodium hydroxide, 50%	>480
Sodium hypochlorite, 10% to 13%	>480

Gloves are tested for many other chemicals. Please contact your sales representative or technical support at 866.343.2181 for additional information.

Note: Review Material Safety Data Sheets for the chemicals being used to determine the required level of protection.

Chemotherapy Agents

The chart below lists chemotherapy drug permeation resistance; minimum breakthrough time in minutes, 0.01µg/cm²/min (ASTM D6978).

Chemical Name	Time
5-Fluorouracil (50 mg/mL)	>240
Blenoxane (15 mg/mL)	>240
Busulfan (6 mg/mL)	>240
Carmustine (3.3 mg/mL)	22
Cisplatin (1.0 mg/mL)	>240
Cyclophosphamide (20 mg/ml)	>240
Cytarabine (100 mg/mL)	>240
Dacarbazine (10.0 mg/mL)	>240
Doxorubicin HCl (2.0 mg/mL)	>240
Ellence (2 mg/mL)	>240
Etoposide (20 mg/mL)	>240
Fludarabine (25 mg/mL)	>240
Idarubicin (1 mg/mL)	>240
Ifosfamide (50 mg/mL)	>240
Mechlorethamine HCL (1.0 mg/ml)	>240
Melphalan (5 mg/mL)	>240
Methotrexate (25 mg/mL)	>240
Mitomycin C (0.5 mg/mL)	>240
Mitoxantrone (2.0 mg/mL)	>240
Paclitaxel (6.0 mg/mL)	>240
Paraplatin (10 mg/mL)	>240
Rituximab (10 mg/mL)	>240
Thiotepa (10 mg/mL)	17
Trisenox (0.1 mg/mL)	>240
Vincristine (1.0 mg/mL)	>240

Caution: Gloves used for protection against chemotherapy drug exposure must be selected specifically for the type of drugs being used.

Note: Review Material Safety Data Sheets for the drugs being used to determine the required level of protection.

Protein Allergens

This is a synthetic glove and contains no natural rubber latex protein allergens.

Residual Chemicals

Chemical accelerators are required in order to give medical gloves desirable physical properties such as tensile strength, elasticity, modulus, tear resistance and tactile sensitivity. Cardinal Health gloves are manufactured with the minimum amount of accelerators required to obtain the appropriate physical properties. Though limited accelerators may be added to our gloves, processing reduces these chemicals so that they are not detectable in the final product using a high pressure liquid chromatography assay.

Bacteriophage Penetration

These gloves passed ASTM F1671, Standard Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Bloodborne Pathogens using Phi-X174 Bacteriophage Penetration as a Test System. This method has been specifically defined for modeling the viral penetration of Hepatitis (B and C) and Human Immunodeficiency Viruses transmitted in blood and potentially infectious body fluids. This method uses a surrogate microbe suspended in simulated body fluid under conditions of continuous contact to assess the effectiveness of the materials used in protective clothing for the wearer's protection against contact with bloodborne pathogens. The outcome is either "pass" or "fail." Cardinal Health tests a statistically significant sample size of 32 gloves versus three gloves as called for in the ASTM method.

We go the extra distance with our testing because the safety of clinicians and patients is a top priority. You expect a certain level of protection when you put on an exam glove. We ensure you're getting that protection – and more.

Ordering Information

Cat. No.	Size	Gloves/ Dispenser Box	Bx/Cs (Total Gloves)
8895N	X-small	100	10 (1000)
8896N	Small	100	10 (1000)
8897N	Medium	100	10 (1000)
8898N	Large	100	10 (1000)
8899N	X-large	90	10 (900)
8899NXX	XX-large	90	10 (900)

For additional information, please contact your Cardinal Health sales representative or call customer service at 800.964.5227.

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