



BIOFLEXX™

SMARTER GLOVES FOR A CHANGING WORLD

BIOFLEXX™ is a biodegradable, non-sterile nitrile examination glove engineered for superior fit, comfort, and chemical resistance. Its advanced formulation offers high tensile strength and dependable barrier protection, making it suitable for a wide range of clinical and professional environments.

Tested for use with chemotherapy drugs and fentanyl citrate, BIOFLEXX™ provides confidence in high-risk settings while reducing long-term environmental impact through its accelerated landfill biodegradability.

BUILT FOR PERFORMANCE, MADE WITH PURPOSE

KEY FEATURES & BENEFITS

- Biodegrading efficacy of 90% after just 600 days*
- High quality formulation for tactile sensitivity
- Tested against chemo drugs and opioid fentanyl citrate



MARKET SEGMENTS

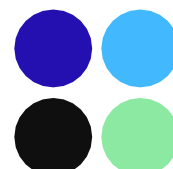
- HEALTHCARE
- LABORATORIES
- BORDER PATROL & CUSTOMS
- FOOD-SERVICE & PREPARATION
- LIFE SCIENCES
- DENTAL
- SPA & BEAUTY SALON
- AUTOMOTIVE & MECHANICAL WORK
- VETERINARY
- TATTOO PARLOURS
- PHARMACEUTICAL COMPOUNDING



IN COMPLIANCE WITH*



COLOR VARIATIONS





PRODUCT INFORMATION



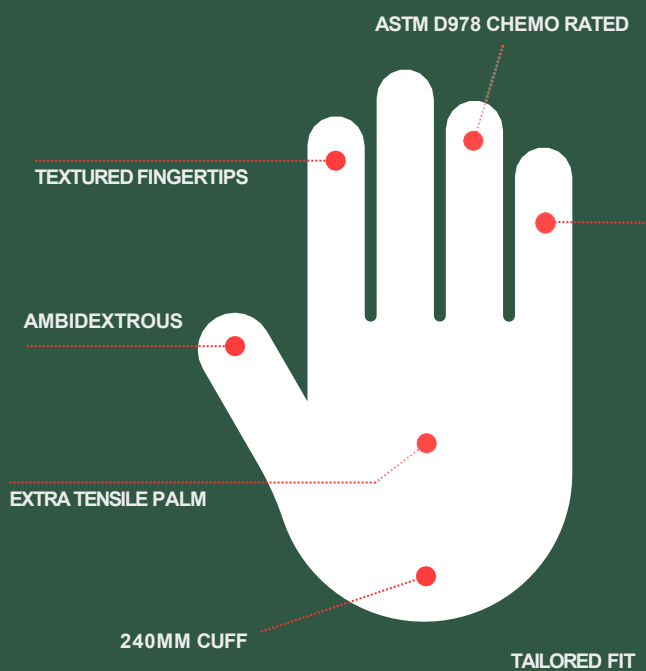
BIODEGRADATION

What Makes BIOFLEXX™ Different? —————

Unlike traditional nitrile gloves—which can remain in landfills for over 200 years—BIOFLEXX™ gloves are specially designed to break down much faster in landfill conditions.

Through a natural process driven by microorganisms, the glove material undergoes biodegradation, turning into harmless elements like water, carbon dioxide, and organic compounds. Independent testing has shown that BIOFLEXX™ breaks down by over 90% in just 600 days—a major leap forward in reducing glove waste.

Conventional nitrile is generally considered non-biodegradable, but BIOFLEXX™ combines medical-grade protection with environmental responsibility, helping lower long-term landfill buildup without sacrificing performance.



ASTM D5511

To determine the degree and rate of anaerobic biodegradation of materials in high-solids anaerobic-digestion conditions, which replicates the anaerobic digester or landfill bioreactor environment.

How it works —————

Dukes' BIOFLEXX™ is engineered with a polymer-based additive that acts as a targeted "food source" for microbes commonly found in landfill environments. This process initiates an enzymatic biodegradation pathway, wherein bacteria secrete enzymes that depolymerize the glove's material. This breakdown allows microorganisms to naturally consume and degrade the remaining polymer over time, accelerating the glove's end-of-life decomposition without compromising its in-use performance.



TECHNICAL DATA SHEET

SMARTER GLOVES FOR A CHANGING WORLD

FEATURES

Powder-free, fingertip textured, ambidextrous, 240mm cuff, blue color

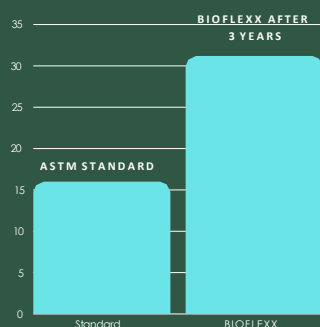
PHYSICAL DIMENSIONS

Length (mm)	≥ 240	Median ≥ 240	≥ 240	Median ≥ 240
Palm (centre of palm) (mm)	≥ 0.05	Median ≥ 0.05	0.07 ± 0.02	Median $\geq 0.07 \pm 0.02$
Finger ($13\text{mm} \pm 3\text{mm}$)	0.08 ± 0.03	Median 0.08 ± 0.03	0.10 ± 0.02	Median $\geq 0.10 \pm 0.02$

PHYSICAL PROPERTIES

Tensile strength (MPa) Before ageing After ageing	≥ 18 ≥ 16	N/A N/A	≥ 18 ≥ 16	N/A N/A
Elongation (%) Before ageing After ageing	≥ 500 ≥ 400	N/A N/A	≥ 500 ≥ 400	N/A N/A
Median force at break (N) Before ageing After ageing	N/A N/A	≥ 6 ≥ 6	N/A N/A	≥ 6 ≥ 6

* Test results based on 35g



ASTM STANDARD TENSILE STRENGTH (MPa)

DUKES BIOFLEXX gloves not only pass but exceed ASTM standards for tensile strength and EN standards for force at break, as well as AQL 1.5 for pinhole.

ASTM Requirement:

Tensile Strength: 16.0 MPa after ageing.

PRODUCT SPECIFICATIONS

PRODUCT CODE	BFLX200
PRODUCT TYPE	Biodegradable Powder-Free Examination Gloves, Non-sterile, Tested for use with Chemotherapy Drugs and Opioid Fentanyl Citrate
PRODUCT CONFORMANCE	This product meets current versions of ASTM D6319, ASTM D6978 and ASTM D5511
MATERIAL	Nitrile Butadiene Rubber
EXTERNAL GLOVE SURFACE	Textured
PRODUCT STANDARDS	U.S FDA & ASTM
PACKAGING OVERVIEW	200 gloves per inner dispenser / 10 dispensers per case / 2000 gloves by case
STORAGE INSTRUCTIONS	Keep out of direct sunlight; store in a cool and dry place. Keep away from sources of ozone or ignition.
COUNTRY OF ORIGIN	Malaysia
ANTISTATIC	Yes
SILICONE FREE	No