

BIOSERV™

SMARTER GLOVES FOR A CHANGING WORLD

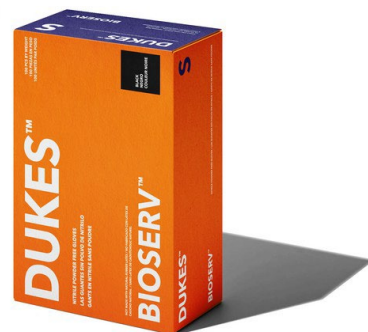
BIOSERV™ is a biodegradable, non-sterile black nitrile glove designed for food service, hospitality, and general-use environments. Engineered for comfort, durability, and daily practicality, its formulation ensures reliable barrier protection and a snug fit for extended wear.

Perfect for kitchens, catering, janitorial work, and customer-facing roles, BIOSERV™ combines performance with purpose. Its environmentally conscious design breaks down faster in landfills, supporting businesses in meeting their sustainability goals without compromising on quality.

BUILT FOR PERFORMANCE, MADE WITH PURPOSE

KEY FEATURES & BENEFITS

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



MARKET SEGMENTS

- FOOD-SERVICE & PREPARATION
- BORDER PATROL & CUSTOMS
- JANITORIAL & SANITATION
- AUTOMOTIVE
- SPA & BEAUTY SALON
- VETINARY
- TATTOO PARLOURS
- HOME DIY



COLOR VARIATIONS



IN COMPLIANCE WITH*

PRODUCT INFORMATION



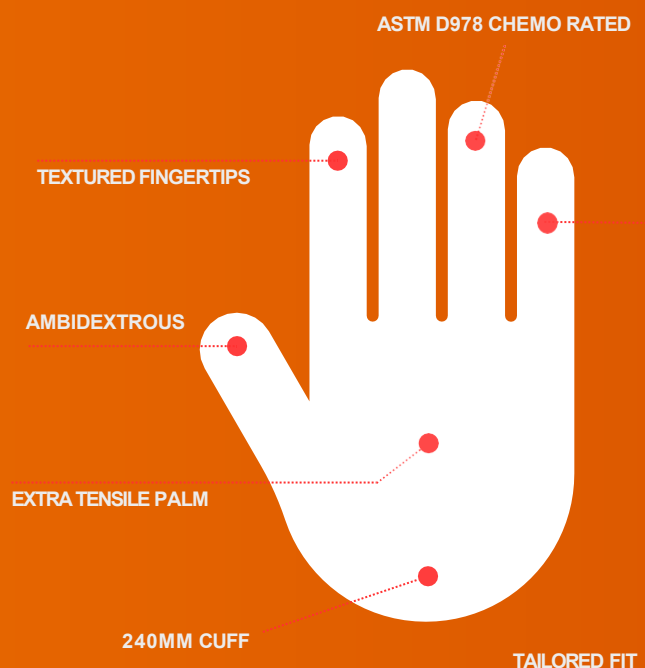
BIODEGRADATION

What Makes BIOSEV™ Different? —————

Unlike traditional nitrile gloves—which can remain in landfills for over 200 years—BIOSEV™ 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 BIOSEV™ 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 BIOSEV™ 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' BIOSEV™ 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

*Available in 3.5g & 4.5g

FEATURES

Powder-free, fingertip textured, ambidextrous, 240mm cuff, black 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 ≥ 0.07 ± 0.02
Finger (13mm ± 3mm)	0.08 ± 0.03	Median 0.08 ± 0.03	0.10 ± 0.02	Median ≥ 0.10 ± 0.02

PHYSICAL PROPERTIES

Tensile strength (MPa)

Before ageing	≥ 18	N/A	≥ 18	N/A
After ageing	≥ 16	N/A	≥ 16	N/A

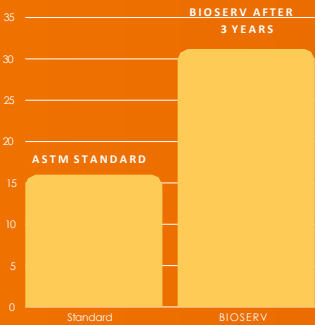
Elongation (%)

Before ageing	≥ 500	N/A	≥ 500	N/A
After ageing	≥ 400	N/A	≥ 400	N/A

Median force at break (N)

Before ageing	N/A	≥ 6	N/A	≥ 6
After ageing	N/A	≥ 6	N/A	≥ 6

* Test results based on 35g



ASTM STANDARD TENSILE STRENGTH (MPa)

DUKES BIOSERV 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	BSRV100
PRODUCT TYPE	Biodegradable Powder-Free Food-Service Gloves, Non-sterile, Tested for use with Chemotherapy Drugs and Opioid Fentanyl Citrate
PRODUCT CONFORMANCE	This product meets current versions of Title 21 CFR 177, ASTM D6978 and ASTM D5511
MATERIAL	Nitrile Butadiene Rubber
EXTERNAL GLOVE SURFACE	Textured
PRODUCT STANDARDS	U.S Title 21 CFR 177 (FOOD-SAFE)
PACKAGING OVERVIEW	100 gloves per inner dispenser / 10 dispensers per case / 1000 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/Thailand/Vietnam
ANTISTATIC	Yes
SILICONE FREE	No