

# Tiburon™ Surgical Drapes

Convertors® Products





*Tiburon™ surgical drapes from Cardinal Health will change the way you think about drapes and draping in your facility.*

Shrinking budgets and reduced reimbursements mean costs must be carefully controlled at every turn without sacrificing the quality of care or jeopardizing patient outcomes. Each decision must be evaluated from the perspective of total value and long-term implications.

**One very effective way to control costs is to reduce the incidence of surgical site infections, which is why we created Tiburon™ surgical drapes.**

*Tiburon™ surgical drapes*

**Inspired by nature, perfected by science.**

Tiburon™ surgical drapes follow the successful run of Convertors® brand Optima® spunlaced fabric from Cardinal Health, which has been the market-leading disposable drape fabric technology since 1985.

Optima® fabric has served the industry extremely well, but technology has made considerable advances of late, and it is now possible to offer impervious fabric — and all the protection it brings — to an entire line of surgical drapes.



**Impervious**

**Enhanced Fluid Control**

**Abrasion Resistant**

**Puncture Resistant**

**Lower Lint\***

\* Tiburon™ fabric is lower linting than other currently available surgical drape fabrics when compared in laboratory testing.

# The threat of surgical site infections

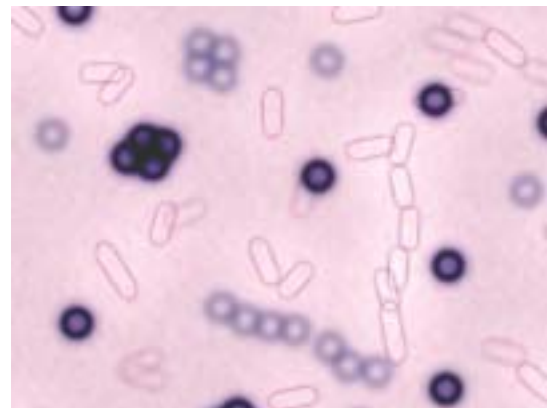
Surgical site infections pose a serious risk to patients undergoing any invasive procedure. Each incident can cost a facility an average of \$3,000 in added expenses and prolong the length of stay by seven to nine days.\* With more than 500,000 of these infections occurring each year, it's clear there are many factors that impact the overall risk, including the barrier provided by surgical drapes.

**An investigation by the *Chicago Tribune* revealed that in 2000, of the 103,000 deaths linked to infections acquired in hospitals, "...nearly three-quarters of the deadly infections — or about 75,000 — were preventable..."** †

**In *Surgery, Gynecology and Obstetrics*, Dr. Joseph A. Moylan, M.D., states that, "The gown and drape barrier system has been shown to be an important factor in the prevention of surgical site infection."** ‡

**And, in the *Guideline for Prevention of Surgical Site Infection, 1999*, the Centers for Disease Control and Prevention stated that surgical drapes "...should be impermeable to liquids and viruses."**

*Tiburon™ fabric passes the industry tests that measure fluid and synthetic viral penetration, which can help you take the drape barrier issue out of the surgical site infection equation.*



\* Bonnie M. Barnard, MPH, CIC, "Fighting Surgical Site Infection," *Infection Control Today*, Apr. 2002.

† *Chicago Tribune*, July 21, 2002.

‡ "The Importance of Gown and Drape Barriers in the Prevention of Wound Infection" (*Surgery, Gynecology and Obstetrics*, Oct. 1980, Vol. 151, 465-470).

# Taking a closer look at Tiburon™ fabric

*This fabric is tough.*

It's engineered to be impervious for maximum patient and clinician safety. It's resistant to abrasion and punctures, yet its flexible, cloth-like properties allow it to drape naturally, following the contours of the patient.

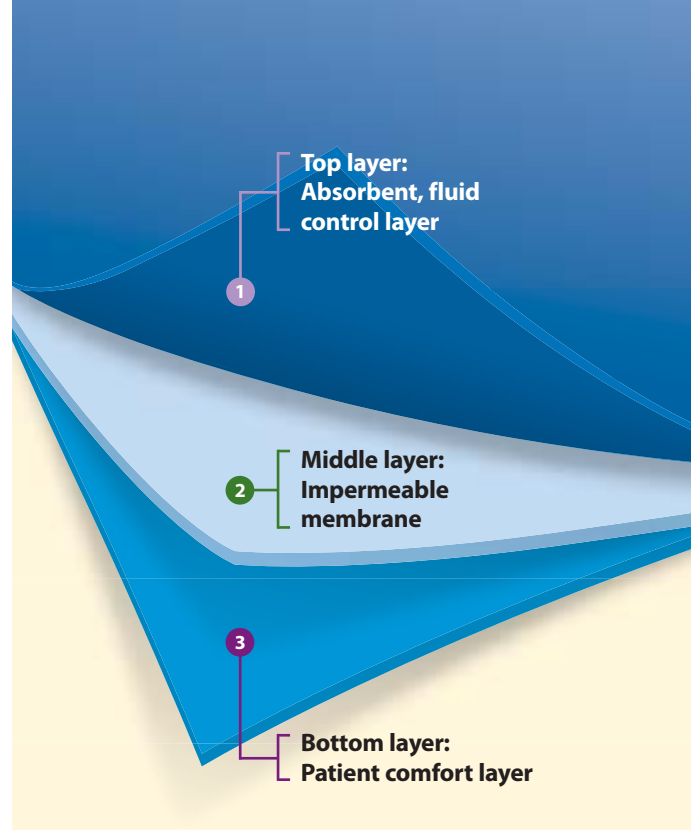
Tiburon™ fabric has fluid control capabilities not found in other drape materials. These unique performance features enable Tiburon™ surgical drapes to improve patient outcomes by contributing to the reduction of surgical site infections.

**Tiburon™ fabric is a three-layer composite made up of an absorbent, fluid control layer, an impermeable membrane and a patient comfort layer. It was created by Cardinal Health in cooperation with the Ahlstrom Corporation, a world leader in the development and production of surgical non-woven fabrics.**

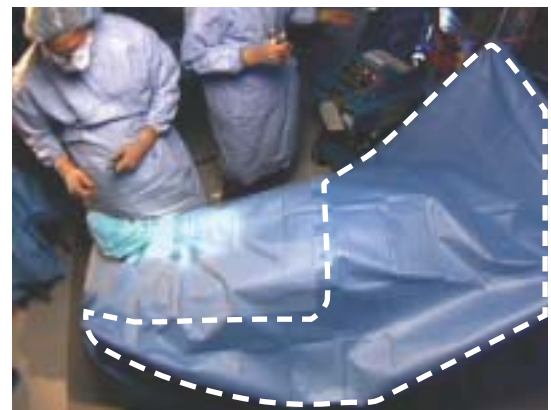
The top layer of spunbond microfiber fabric receives a treatment which makes it absorbent. The lighter, bottom fabric layer is engineered for maximum patient comfort.

Tiburon™ fabric's impermeable middle layer is a cast-extruded polyethylene membrane laminated to the non-woven components. This thin membrane adds little to the fabric weight, yet it provides a fluid barrier substantial enough to qualify as impervious by rigorous FDA-recognized standards.

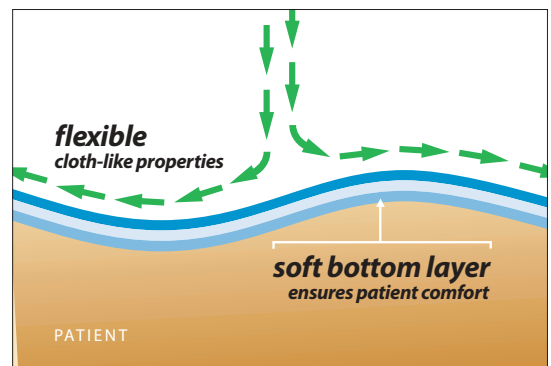
The Tiburon™ fabric is made into surgical drapes at Cardinal Health facilities in the United States, Mexico, and the Dominican Republic utilizing the latest in computer-controlled material handling and the precision craftsmanship that comes from more than 30 years of experience designing and fabricating single-use drapes and gowns.



Tiburon™ surgical drape's three-layer construction.



Tiburon™ fabric extends impervious protection beyond the fenestration area.



Tiburon™ surgical drape's flexible, cloth-like properties allow it to drape naturally, following the contours of the patient.

# Impervious

*The highest level of protection*

Tiburon™ fabric was engineered by scientists with the help of clinicians who truly understand the clinical environment. That's why it's so well-adapted to perform in the OR.

**The unique physical characteristics of Tiburon™ fabric put it well ahead of the competition in several key areas. In fact, Tiburon™ fabric outperforms competitive technologies in a wide range of industry-standard tests.**

*Tiburon™ fabric passes both industry-standard tests required to be considered impervious\* and, therefore, provides the highest level of protection available.*

**Medline's Proxima™ drape fabric does not.  
Neither does Kimberly-Clark's ORTHOARTS® drape fabric.**

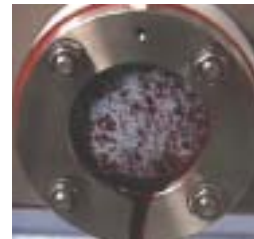
Impervious fabric can help reduce the incidence of strike-through, which can occur when fluid that has pooled on non-impervious fabric is given enough time or pressure. Fluid strike-through creates a pathway for microorganisms, which can lead to contamination.



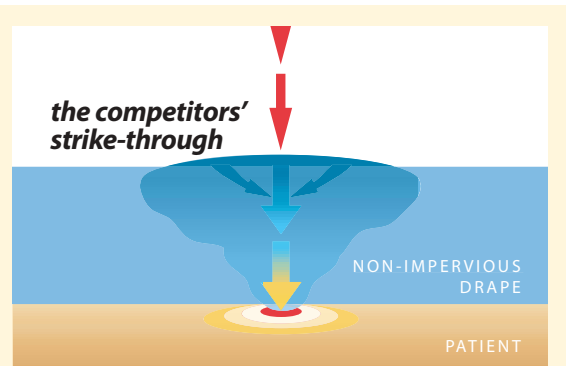
**Tiburon™ surgical drape fabric**



**Kimberly-Clark ORTHOARTS® drape fabric**



**Medline Proxima™ drape fabric**



**Even the smallest drop of fluid that strikes through a non-impervious drape can contain dangerous, infection-causing microorganisms such as HIV, hepatitis B and C, *Staphylococcus epidermidis*, *Staphylococcus aureus* and *Enterococcus faecalis*, among others.**

\* ASTM F1670 Synthetic Blood Barrier: Standard test method for resistance of materials used in protective clothing. ASTM F1671 Surrogate Pathogen Barrier: 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.

# Absorbency

*Controlling fluid where it matters most*

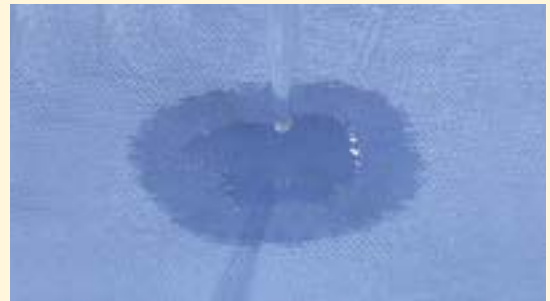
Surgical drapes have traditionally been fluid-repellent simply because they had to be to prevent fluid from pooling and potentially striking through. But, the fluid that doesn't pool on the drape has to go somewhere — either on the floor, onto delicate OR equipment, onto the clinicians or back toward the patient.

**As Tiburon™ fabric is impervious, the absorbent top layer can effectively hold and disperse fluid away from the patient, reducing the chance of contamination and infection.**

**Medline's Proxima™ drape fabric and Kimberly-Clark's standard drape fabric both repel fluid.**

The reinforcement around the fenestration of Cardinal Health drapes has always featured the highly absorbent and impervious Opti-Sorb® material. The new Tiburon™ fabric drapes now provide the same level of impervious protection with a lower level of absorbency throughout the base drape material.

For longer, more fluid-intensive procedures, such as orthopedic or cardiovascular, Cardinal Health continues to offer Iso-Bac® antimicrobial absorbent reinforcement. Iso-Bac® provides an additional defense against such pathogens as *Staphylococcus epidermidis*, *Staphylococcus aureus* and *Enterococcus faecalis*.



**Tiburon™ surgical drape fabric**



**Kimberly-Clark standard drape fabric**



**Medline Proxima™ drape fabric**

# Puncture, abrasion, strength and linting

## *A measurable difference*

A reliable drape must be able to stand up to the kind of handling and stress that can occur during a procedure.

*Tiburon™ fabric's performance in these industry-standard tests clearly demonstrates its durability and strength.*



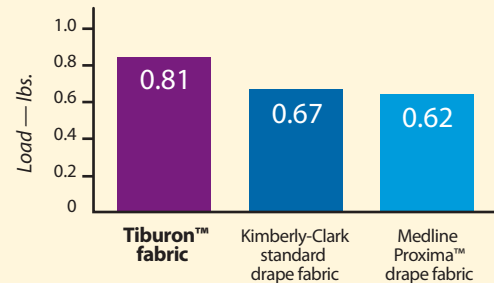
**Tiburon™ fabric**

### **ASTM F1342 Puncture Resistance**

Standard test method for protective clothing material resistance to puncture.

*20% better than Kimberly-Clark standard drape fabric*

*30% better than Medline Proxima™ drape fabric*



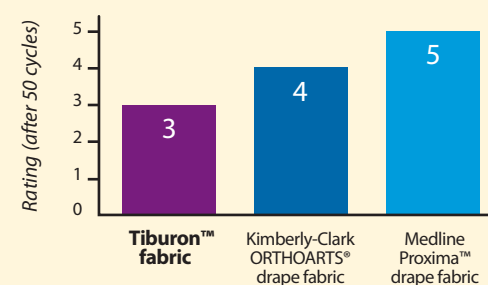
**Medline Proxima™ drape fabric**

### **ASTM D3884 Abrasion Resistance**

Standard guide for abrasion resistance of textile fabrics.

*50% better than Kimberly-Clark's ORTHOARTS® drape fabric*

*100% better than Medline's Proxima™ drape fabric*



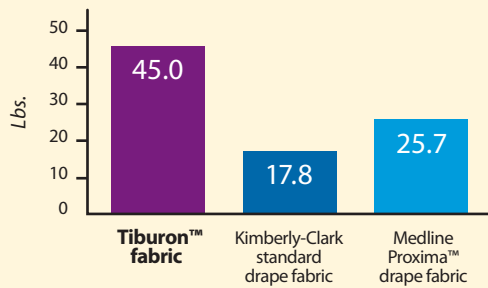


**l to r: Tiburon™ fabric, Medline Proxima™ drape fabric, Kimberly-Clark standard drape fabric**

**ASTM D5034 Tensile Strength**

Standard test method for breaking strength and elongation of textile fabric (Grab Test).

*152% better than Kimberly-Clark's standard drape fabric  
75% better than Medline's Proxima™ fabric*

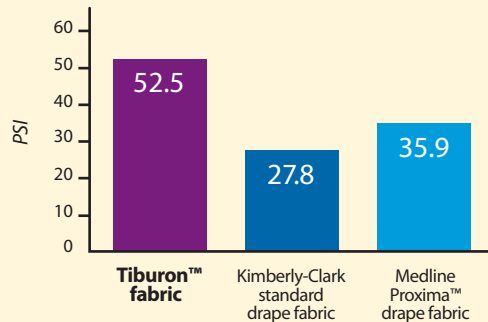


**Kimberly-Clark standard drape fabric**

**ASTM D3786 Burst Strength**

Standard test method for hydraulic bursting strength of textile fabrics — diaphragm bursting strength test method.

*89% better than Kimberly-Clark's standard drape fabric  
46% better than Medline's Proxima™ drape fabric*



*Tiburon™ fabric is one of the lowest linting fabrics in production today when compared in laboratory testing.\**

**Linting can be a serious issue when dealing with invasive procedures. The primary concerns in the industry are centered around granuloma, occlusion, and embolism and airborne pathogens.**

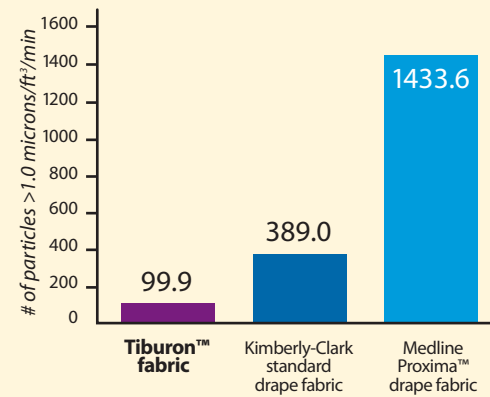


**Tiburon™ fabric**

**IST 160.1 Linting**

Standard test method for resistance to linting of non-woven fabrics (dry).

*289% better than Kimberly-Clark's standard drape fabric  
1335% better than Medline's Proxima™ drape fabric*



*\* Tiburon™ fabric is lower linting than other currently available surgical drape fabrics when compared in laboratory testing.*

Product tested under project CO-02-02398  
Request No. 050802, 110902, 130902, 140902, 170902

# Tiburon™ fabric

Delivering protection, performance and value

*Because Tiburon™ fabric is impervious and puncture-resistant, in many cases there's no need for additional drapes or half-sheets to be applied. With barrier protection and puncture resistance in one layer, you save material costs and setup time.*

Tiburon™ surgical drapes were designed to improve patient outcomes by contributing to the reduction of surgical site infections. Combining an impervious barrier with tough, puncture-resistant, non-woven fabric is the key to this remarkable material's effectiveness. Add to that impressive fluid-control capabilities, and you've got a combination that could only have been...**inspired by nature, perfected by science.**





## Convertors® Products

**For additional information, please contact your  
Cardinal Health, Convertors® Products sales  
representative or customer service at 1.800.964.5227.**

Tiburon is a trademark of Cardinal Health, Inc. or one of its subsidiaries.  
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Proxima is a trademark of Medline Industries, Inc.

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Cardinal Health  
Convertors® Products  
1500 Waukegan Road  
McGaw Park, IL 60085

[www.cardinal.com](http://www.cardinal.com)

