# Biogel<sup>®</sup> PI UltraTouch<sup>®</sup> S

### Synthetic surgical glove



Biogel® PI UltraTouch® S is a surgical glove made from synthetic polyisoprene excluding chemical accelerators known to cause skin irritation, such as Thiazoles, Thiurams, Carbamates, Thioureas and Diphenylguanidine.<sup>1</sup> It is also manufactured without CPC (Cetyl Pyridinium Chloride). The Biogel PI UltraTouch S provides the same great feel, comfort and protection as any Biogel glove. It can be worn alone or in combination with the Biogel PI UltraTouch S Indicator Underglove to create a Biogel Puncture Indication System with Best-in-Class perforation detection.<sup>2,3</sup>



#### Key features and benefits:

- Manufactured without chemical accelerators known to cause skin irritation<sup>1\*</sup>
- Reduced risk of a hole with an industry-leading AQL\*\* of 0.65, determined post packaging<sup>4</sup>
- Every glove (100%) is air-inflation tested for holes typically not detected in a visual inspection<sup>5</sup>
- Low endotoxin level (<20 EU/pair), which may reduce the risk of post-operative complications<sup>4,6</sup>

#### Recommended use

An all-purpose glove recommended for all surgical procedures, particularly when the risk of latex allergy or skin irritation for the patient or clinician needs to be considered. It can be worn alone, or as part of a Biogel Puncture Indication System.

#### **Biogel quality**

Biogel has an industry-leading freedom from holes AQL of 0.65, determined post packaging. The industry standard requirement for AQL is 1.5. The lower the number, the fewer the holes and the higher the quality of glove. Biogel is proven to have the lowest glove failure rate among major competitors. A study showed that non-Biogel gloves are at least 3.5 times as likely to fail compared to Biogel gloves.<sup>7</sup>

\*Thiazoles, Thiurams, Carbamates, Thioureas and Diphenylguanidine

\*\* AQL=Acceptable Quality Level refers to the maximum number of defective products that could be considered acceptable during the random sampling of an inspection, in this case freedom from holes in gloves.

## Biogel® PI UltraTouch® S

#### Material information

- Synthetic polyisoprene
- Manufactured without accelerators and CPC\*
- Biogel hydrogel polymer coating
- Curved finger and smooth surface
- Anti-slip, beaded cuff
- Powder-free

#### Ordering information REF 455

REF	Size	Pairs	
45555	51/2	50/Box	
45560	6	50/Box	
45565	61/2	50/Box	
45570	7	50/Box	
45575	71/2	50/Box	
45580	8	50/Box	
45585	81⁄2	50/Box	
45590	9	40/Box	

4 boxes per case



#### Biogel® PI UltraTouch® S REF 455 – Product specifications

REF	Size	Length, mm (Tolerance +20 mm; -10 mm)	Lay flat palm width, mm (±3 mm)
45555	51⁄2	283	71
45560	6	285	77
45565	61/2	285	85
45570	7	288	91
45575	71/2	298	96
45580	8	299	103
45585	81⁄2	301	109
45590	9	301	115

Typical thickness profile – single wall				
Cuff	8.5mils	0.22 mm		
Palm	10.2 mils	0.26 mm		
Finger	10.6 mils	0.27 mm		

Biogel PI UltraTouch S are tested and manufactured to the following standards			
Quality/Environment	ISO 13485, ISO 14001		
Product	EN 455-1, EN 455-2, EN 455-3, EN 455-4, EN 374-1, EN374-2, EN 374-4, EN 16523-1, EN 374-5, ASTM D3577, ISO 10282		
Sterilization	ISO 11137, Gamma Irradiation, SAL 10 <sup>-6</sup>		
Viral penetration	Bacteriophage Test, ISO 16604		
Allergenicity	ISO 10993 (Part 5 and 10)		
Pyrogenicity	ASTM D7102		
Labeling	EN 1041, EN 556-1, EN 15223-1, EN 420		
Packaging	EN ISO 11607		

Physical glove properties	Standard requirement	Biogel PI UltraTouch S Typical value			
Force at break (N)					
Initial	≥9	19			
Aged	≥9	18			
Tensile strength (MPa)					
Initial	≥17	25			
Aged	≥12	23			
Modulus Stress @500% elongation (MPa)					
Initial	7.0 max	2.0			
Aged	n/a	2.0			
Elongation at break (%)					
Initial	≥ 650	1019			
Aged	≥490	1023			
Typical accelerator analysis (% w/w)					
Dithiocarbamate (DTC)	n/a	none			
Diphenyl thiourea (DPTU)	n/a	none			
Diphenylguanidine (DPG)	n/a	none			
Zinc mercaptobenzothiazole (ZMBT)	n/a	none			
Thiurams	n/a	none			
<b>AQL freedom from holes</b> (1000 ml water leak test)	1.5	0.65***			
Process Average (%) (Total water leak holes detected over total water leak test conducted for a year)	n/a	<0.20			
<b>Grip</b> (Measure of the surface grip. Scale of 1–5, the higher the value, the greater the level of drag)	n/a	1.0			

\*\*\* post packaging

#### **General** information

**Pyrogenicity:** Each batch of Biogel gloves is tested to have a low endotoxin level (<20 EU/pair).

**Registering authority:** Biogel PI UltraTouch S has 510(k) clearance in the USA. Biogel PI UltraTouch S is Class IIa product according to the medical device directive, and Class I according to FDA.

**Storage:** Store at room temperature; in a cool, dry place away from sources of heat or direct sunlight (recommended 5°-25°C).

**Packaging:** One pair per pack, in a high quality inner wrap, packed into a film pack (constructed of a laminate of polyester and low-density polyethylene). 50 pairs per collation case for sizes 5.5 – 8.5; 40 pairs for size 9.0; 200 pairs per transit case for sizes 5.5 – 8.5; 160 pairs for size 9.0.



**Disposal:** Gloves and outer wrap may be disposed of as clinical waste. Paper inner wrap, collation case and transit case can be recycled as paper or disposed of as clinical waste.

Shelf life: Three (3) years from date of manufacture.

Manufacturer: Made and packed in Malaysia by Mölnlycke Health Care Sdn Bhd.

Country of origin: Malaysia

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References: 1. Final Design Verification Report. Mölnlycke Health Care. Data on File. 2. Wigmore SJ & Rainey JB. Use of coloured undergloves to detect puncture. BJS 1994: 81:1480. 3. MHC Report, Glove puncture detection systems, GMCS-2017-098. Data on file. 4. Summary of Technical Documents. Section 5. Mölnlycke Health Care. Data on File. 5. Internal SOP. Automatic Glove Inspection by QMAX. Mölnlycke Health Care. Data on File. 6. Asplund Peiro S et al. Quantitative determination of endotoxins on surgical gloves. Journal of Hospital Infection 1990; 16:167-172. 7. In Use Surgical Glove Failure Rate Comparison. Study G009-005. Mölnlycke Health Care 2009. Data on file.

#### Find out more at www.molnlycke.us



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