

# Results are important for both surgeons and patients



# **3 Different Needs in Theatre**

# **1**Solution for All

**Thoracic Sealing** 



COSEAL Surgical Sealant significantly reduced the length of hospitalisation for patient undergoing lung surgery compared to controls (p = 0.009)<sup>3</sup> Adapted from Venuta et al.

Vascular Sealing



In this preclinical study blood loss was significantly reduced in the COSEAL group (19  $\pm$ 31g, Median = 1.7g) compared with the tamponade control group (284  $\pm$ 151g, Median = 232g) (p = 0.05)<sup>2</sup> Adapted from Hill et al.

#### **Gynaecologic Adhesion Prevention**



The Coseal group had more than 3 times lower severity scores than control (p = 0.01) at the second look procedure<sup>4</sup>. Adapted from Mettler et al.

## **Biocompatible**

COSEAL Surgical Sealant is largely composed of water (~80%) while approximately 20% is comprised of two different polyethylene glycol (PEG) molecules and a HCl buffer. PEG is a biologically inert material that is commonly used in surgical devices.

## Action

COSEAL consists of two different PEG molecules that cross link with each other and form a covalent bond with proteins from underlying tissue to form an absorbable, adherent and biocompatible hydrogel layer.

The PEG layer is impermeable to the fibrin rich exudate which is present during postoperative healing, preventing the formation of tenacious bands of adhesiogenic tissue. The rapid polymerisation of COSEAL completes within 60 seconds to form a continuous layer of burst resistant, elastic, low friction hydogel.



## **Products**



# **Control and Protect**

## Synthetic Sealing In Cardiac, Vascular and Thoracic Surgery Adhesion Prevention In Cardiac and Gynaecologic Surgery

#### Adherent to tissue

COSEAL Surgical Sealant forms a mechanical lock to synthetic materials and covalently bonds with the proteins in the underlying target tissue<sup>5</sup>

### Conformable & elastic

COSEAL conforms to the anatomy of underlying target tissue, is elastic and non-restrictive<sup>2</sup>

### Site specific

The components of COSEAL rapidly polymerise within ~5 seconds and the resulting hydrogel attains full strength within 60 seconds (sealant to be left undisturbed during this time)<sup>2</sup>

### **Controlled delivery**

With a choice of 5 different applicators, COSEAL can be applied and delivered how and where you need it

#### Simple to use

COSEAL can be prepared within 2 minutes and it is stored at room temperature (below 25°C / 77°F)<sup>5</sup>

### Synthetic hydrogel technology

Two distinct synthetic polyethylene glycol (PEG) polymers crosslink together to form COSEAL, which is hydrolised over a period of 7-30 days (according to preclinical studies)\*<sup>2,5</sup>



\* Preclinical studies suggested resorption in 7-30 days. The rate of resorption can differ as it is dependent on several factors, including the amount of product applied in situ and the site of use.



Product Code	Product Information
934073	2ml COSEAL Surgical Sealant
934074	4ml COSEAL Surgical Sealant
934075	8ml COSEAL Surgical Sealant
934033	Replacement 3" Applicator Tip
934034	Extended 7" Applicator Tip
1504275	EASYSPRAY Spray Regulator
0600021	EASYSPRAY Spray Set
0600043	DUPLOSPRAY MIS Applicator 2
0600044	DUPLOSPRAY MIS Applicator 3
0600123	DUPLOSPRAY MIS Regulator

COSEAL Surgical Sealant Device Summary Please refer to your local IFU for further information.

#### Indications:

- Sealing suture lines along arterial and venous reconstructions.
- Enforcement of suture and staple lines in lung resection procedures.
- Patients undergoing cardiac surgery to prevent or reduce the incidence, severity and extent of post surgical adhesion formation
- severity and extent of post surgical adhesion formation.

Composition: 1) Two synthetic polyethylene glycols. 2) Dilute hydrogen chloride solution. 3) Sodium phosphate / sodium carbonate solution.

Contraindications: Do not use COSEAL as sealant for bronchial stump, sleeve resection, decorticated lung or where pleural adhesions are desired.

Warnings: Do not inject into blood vessels. Do not use in place of sutures, staples or mechanical closure. Increases in volume by four times within 24 hours of application. Additional swelling occurs during resorbtion. A thin layer of product (1ml/10cm<sup>2</sup>) is recommended in compression sensitive areas. Do not use in contaminated pulmonary resection. Not for use as an adherent.

Disclaimer: Refer to IFU.

#### References

- 1. Wallace D G et al. A Tissue Sealant Based on Reactive Multifunctional Polyethylene Glycol. J Biomed Master Res (Appl Biomater) 2001; 58: 545-555
- 308-312
- 1093-1100
- 5. Baxter Healthcare SA 2021. COSEAL Instructions for Use

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- Patients undergoing laparotomic or laparoscopic gynecological surgery as an adjunct to good surgical technique intended to reduce the incidence,

2. Hill A et al. Treatment of Suture Line Bleeding with a Novel Synthetic Surgical Sealant in a Canine Iliac PTFE Graft Model. J Biomed Master Res (Appl Biomater) 2001; 58:

Venuta F et al. Use of a polymeric sealant to reduce air leaks after lobectomy. J Thorac Cardiovasc Surg 2006; 132(2): 422-423
Mettler L et al. A safety and efficacy study of a resorbable hydrogel for reduction of postoperative adhesions following myomectomy. Human Reproduction 2008; Vol.23(5):

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5 Specialties, 3 Needs in Theatre, **1** Solution for All

### Protecting what matters is a clear choice

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