



# 4DryField® PH

The only product worldwide CE-certified for

**Adhesion prevention & Hemostasis**

SIMPLE. SAFE. EFFECTIVE.

No human or animal components.

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Unique manufacturing process, 2 patents pending



# Adhesions

Common, chronic and costly

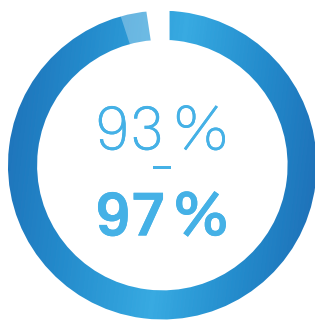
## Causes of adhesions

- Surgical trauma<sup>1,2</sup>
- Inflammation<sup>1,2</sup>
- Endometriosis<sup>1,2</sup>

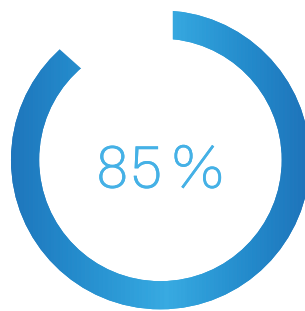
## Clinical consequences

- Main cause of chronic pain<sup>3</sup>
- Main cause of secondary female infertility<sup>3,4,5</sup>
- Main cause of small bowel obstructions<sup>3,4,5</sup>
- Re-operations (in 33–35 % of patients within 10 years)<sup>5,6</sup>

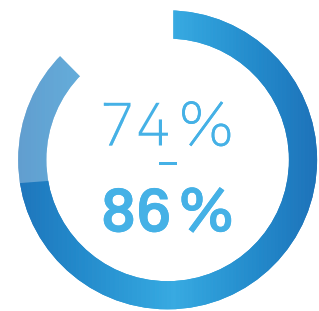
Incidence of postoperative adhesions<sup>7,8</sup>



Mean recurrence rate of adhesions<sup>9</sup>



Main cause of small bowel obstructions<sup>10,11</sup>



## Economic consequences



~30 min  
longer operation time<sup>5,12</sup>



severe **burden**  
for patient and surgeon<sup>5,12-14</sup>



significant **costs**  
for the healthcare system<sup>5,12-17</sup>



44,3 % of **readmissions**  
directly or possibly related to  
adhesions<sup>5</sup>

# 4DryField® in powder form

## Immediate hemostasis

The hydrophilic microparticles extract water from the blood, thereby concentrating the clotting factors

### > Acceleration of the coagulation cascade.

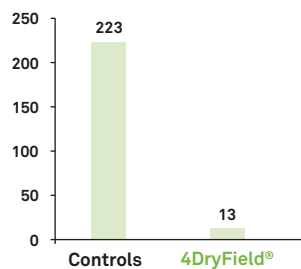
The patient's blood is transformed into a natural fibrin glue.

# 4DryField® as a gel

## Effective adhesion prevention

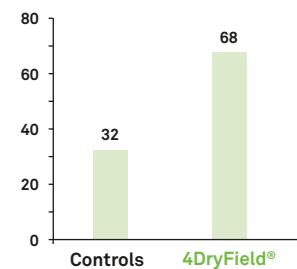
In combination with saline solution the hydrophilic particles form a viscous gel. The gel functions as a temporary mechanical barrier separating surgically traumatized tissue and ensuring the healing of serous surfaces.

**Clotting time [s],**  
50 % HAES-diluted blood



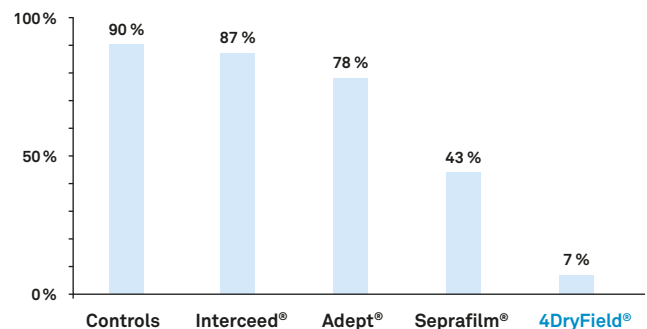
4DryField® significantly accelerates clotting time, even in diluted blood.<sup>18</sup>

**Max. clot firmness [mm],**  
50 % HAES-diluted blood



4DryField® significantly increases clot firmness, even in diluted blood.<sup>18</sup>

**Incidence of adhesions**



4DryField® as a gel significantly reduces adhesion formation by 93%.<sup>19</sup>

4DryField® absorbs many times its own mass in liquid within a few seconds. Thus, the coagulation cascade is accelerated.

### 1. Cleaning & Drying

The area of bleeding to be treated should be as clean and as dry as possible.



### 2. Application

Direct application of 4DryField® powder on the area of bleeding. If necessary, apply pressure with a gauze pad.



### 3. Bleeding stopped

If used, moisten gauze to remove.



The gel barrier is retained only for the duration of mesothelial healing.

### It is important that the gel is free of blood!

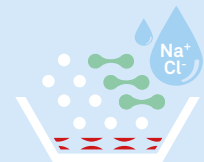
### 1. Application

Evenly cover the wound area with 4DryField® powder.



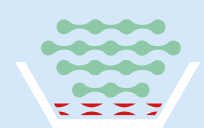
### 2. Gel transformation

Sprinkling with isotonic saline solution until the powder is transformed into a gel.



### Gel dosage

Depending on application field and required viscosity 20–60 ml of saline solution per 5 g of 4DryField® powder.



# Indications

Versatile, simple, safe and effective

- Burns surgery
- Cardiothoracic surgery
- ENT surgery
- General surgery
- GI surgery
- Gynecology
- Maxillofacial surgery
- Neurosurgery
- Orthopedics
- Pediatric surgery
- Plastic surgery
- Transplant surgery
- Traumatology
- Tumor surgery
- Urological surgery
- Vascular surgery

## SIMPLE

### Ready to use

### Easy application

No special storage conditions

Simple and fast laparoscopic application with the new **4DFLap™ applicator**

## SAFE

### Purely plant-based

- No human or animal components
- No risk of disease transmission

### Excellent tolerability<sup>20</sup>

- Not cytotoxic
- Up to 1 g/kg body weight is well tolerated
- Does not enhance viability of tumor cells
- Promotes recovery

### Free of pyrogens<sup>21</sup>

### Resorption within 7 days<sup>20</sup>

### No documentation requirement as per transfusion law

## EFFECTIVE

### Immediate hemostasis<sup>18,22-26</sup>

### Highly effective adhesion prevention<sup>19,23-29</sup>

5 g of 4DryField® is enough for at least 100 cm<sup>2</sup>

## 4DryField® PH

Catalog number	Contents
SK0001-EU	5 x 1 g
SK0003-EU	3 x 3 g
SK0005-EU	3 x 5 g
SK0009-EU	3 x 9 g

## 4DFLap™ applicator



### For laparoscopic procedures

### Ergonomic handpiece

Flexible inner hose with shape memory effect

Suitable for current trocars from 5 mm upwards

Catalog number	Contents
LA0038-EU	18 units

For further information and videos please visit

[www.plantttec-medical.de](http://www.plantttec-medical.de)

4DryField® PH and 4DFLap™ should not be exposed to extreme temperatures or direct light irradiation. Keep under normal hospital storage conditions.

Please find further information in the instructions for use at [www.plantttec-medical.de](http://www.plantttec-medical.de)