

# Instruction manual for OTTER products

## Scope

The following information are valid for all OTTER spill bunds, the OTTER funnel collector, and the OTTER box.

These OTTER products are open containers, designed for collecting or draining leaking substances and/or for the temporary storage of substances in closed containers.

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## 1. Material used

### 1.1 Tarpaulin material

<b>Material</b>	Polyester fabric coated with soft PVC on both sides		
	<b>OTTER spill bunds, OTTER funnel collector, OTTER box</b>	<b>OTTER-IBC spill bunds*</b>	
<b>Total weight</b>	680 g/m <sup>2</sup>	900 g/m <sup>2</sup>	
<b>Tear strength</b>	3000/3000 N/5 cm	4300/4000 N/5 cm	DIN EN ISO 1421/V1
<b>Tear resistance</b>	300/300 N	500/500 N	DIN 53363
<b>Temperature resistance</b>	-30°C/+70°C	-30°C/+70°C	
<b>Adhesion strength</b>	100 N/5 cm	100 N/5 cm	
<b>Burn behaviour</b>	< 100 mm/min.	< 100 mm/min.	DIN 75200 / ISO 3795

\* The OTTER-IBC spill bunds are made of stronger material.

### 1.2 Components

All locks, hooks and cramps are either made of stainless steel or rigid PVC.

## 2. Chemical resistance

### 2.1 In general, the following applies:

PVC is characterized by very good chemical resistance.

The chemical resistance of PVC changes with increasing or decreasing temperature, as the structure of the plastics also changes with temperature fluctuations and becomes softer at high temperatures, for example.

In general, it can be said that with increasing temperature, the chemical resistance of PVC decreases.

### 2.2 For which substances can the OTTER spill bunds be used?

The spill bunds are open containers, which may only be used for collecting and not for storing liquids.

With an exposure time of a few hours, the spill bunds are suitable for most chemical substances.

### 2.3 Commonly used substances for which OTTER products are suitable

**Fuels:**

- Gasoline
- Diesel
- Heating oil
- Lubricants
- Hydraulic oil
- Brake fluid

**Acids:**

- Sulphuric acid
- Hydrochloric acid
- acetic acid

**Alkalis:**

- All alkalis

**PVC is attacked by, inter alia, acetone, diethyl ether, tetrahydrofuran (THF), benzene, chloroform.**

## 2.4 Resistance of PVC to long-term exposure

The table below provides information on the chemical resistance of PVC to groups of substances under long-term exposure.

Substance groups	Chemical resistance	
	Good	Weak
Acids (light, diluted, strong, concentrated)	☑	
Oxidizing acids / oxidizing agents		☑
Alkalis	☑	
Alcohols, aliphatic	☑	
Ketones		☑
Aldehydes		☑
Esters		☑
Hydrocarbons, aliphatic	☑	
Hydrocarbons, aromatic		☑
Hydrocarbons, halogenated		☑
Ether		☑

Very few chemicals can cause plasticizer loss, color change or softening on the surface. During an initial stressing, the functionality is very highly probability guaranteed. For safety reasons, we recommend replacing OTTER products with visible damages.

**We point out that the spill bunds must be checked after cases of emergency operations.**

## 3. Suitability test

Use of chemical compounds with unknown effect on PVC tarpaulin material:

When using substances with unknown effect, we recommend to carrying out a suitability test. For a suitability test, tarpaulin pieces with a welded connection can be ordered from us free of charge. Get in touch with us via [office@acquaalta.ch](mailto:office@acquaalta.ch).

## 4. Careful handling

Textile materials are mechanically resilient to a limited extent and require a correspondingly careful handling. In particular, care must be taken to ensure that the products are not dragged/pulled over the floor. Coarse-grained and rough soil surfaces can cause severe abrasions.

## 5. Maintenance

### 5.1 Post-use control

After each use, the usability of spill bunds must be checked. Attention must be paid to possible plasticizer losses, damages (abrasions) or other changes. The products are to be cleaned inside and outside. When using detergents, you have to rinse the spill bunds with sufficient water.

### 5.2 Replacement of OTTER products

Damages (plasticizer losses) caused by exposure to chemical substances:

With plasticizer losses, the tarpaulin material loses its elasticity. Looking closely, the loss of volume becomes visually, because the polyester fabric is visible on the surface.

Spill bunds with plasticizer losses must be replaced.

### 5.3 Storage of the spill bunds

The clean and dry spill bunds should be stored in weather-protected, dry places.

## 6. Repairs

### 6.1 In general, the following applies:

Repairs must be carried out professionally. Pieces of tarpaulin (patches) are applied with hot air or high frequency. The patches with rounded corners should be applied on the outside, if possible. Damages to the spill bund-edges and -corners cannot be repaired properly.

### 6.2 Repairs by our customers themselves

Tarpaulin pieces for self-cutting can be ordered from us free of charge. Get in touch with us via [office@acquaalta.ch](mailto:office@acquaalta.ch).

**The gluing of tarpaulin patches is not permitted!**

### 6.3 Repairs by Acquaalta Schutzsysteme GmbH

We repair the OTTER products at cost price. Please send inquiries to: [office@acquaalta.ch](mailto:office@acquaalta.ch).

The information in this instruction manual is based on our current knowledge and experience. A legally binding assurance of certain properties or suitability for a specific purpose cannot be derived from this present information.

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