



## VALENO® Layertray

The EXCOR® VALENO® Layertray solution refines trays with the proven EXCOR® VCI active substance and, thus, effectively protects the packaged inside against corrosion.

To avoid high tooling costs for small to medium series for thermoformed or injection-moulded trays, EXCOR® offers the Layertray as a cost-effective alternative.

Using a special process, EXCOR is able to laminate trays of different dimensions or materials (corrugated board, cast fibre, plastic) with a VCI film true to contour. This even includes trays with highly complex geometric shapes as well as corrugated cardboard thoothed rack..

The VCI protection becomes part of the tray and – in the case of a closed outer packaging – makes further corrosion protection unnecessary. The time-consuming lining of trays with a VCI film or their covering with a VCI hood is no longer necessary. This enables the direct loading of the trays, it minimises the need for packaging components and it optimises handling at the workplace.

Application-specific disposable trays made of corrugated board or cast fibre, which EXCOR equips with a VCI-donating barrier layer, not only offer corrosion protection but also simultaneously prevents contamination, for example through fibre abrasion. After use, the VCI film can easily be removed from the tray and disposed of in a material recycling process.

Even existing plastic trays for reusable applications can be given corrosion protection properties in this way. After use, the foil can be replaced by a fresh one.

### ▶ ADVANTAGES

No further VCI protection is necessary with closed outer packaging

Easy handling at the workplace

Applicable for automated packaging processes

Separation according to type and sustainable disposal possible

**SAFE IN THE YELLOW ZONE.**  
Clever corrosion protection from the technology leader.

### ▶ Protective effect\*

Type E:	Steel, cast steel, partially galvanized steel, Cr, Al 4xxx (Si >7%), cast iron
Type NE(C):	Cu, brass, Al 2xxx (Cu) and 5xxx (magnesium) possible
Type NE(S):	Ag, Cu, brass, Al 2xxx (Cu) and 5xxx (magnesium) possible
Type MM:	Steel, galvanised and tinned steel, Cu, brass, aluminium 2xxx (Cu), Al 4xxx (Si >7%), 5xxx (Mg), 6xxx (Mg, Si), 7xxx (Zn), other Al alloys subject to consultation, combinations of the above mentioned metals
Type A:	Steel, galvanized steel, Cu, brass, aluminium 2xxx (Cu), Mg alloys possible, cast iron

\* In the case of metal parts with unusual surface conditions, e.g. higher roughness or adhesive residues from processing media, taking the following measures is recommended before the large-scale technical application of EXCOR® VCI materials tests with model packaging in a climate that simulates practical conditions. For this purpose, EXCOR® Korrosionsforschung GmbH in Dresden has climate test cabinets and climate chambers (up to 16 m³ volume) available.



## Technical data

### Brief description

EXCOR® VALENO® Layertray consists of a polyethylene corrosion protection film with VCI active substances incorporated in the polymer matrix. It is odourless, resistant to abrasion and demonstrates good resistance to ageing. Materials such as corrugated board, cast fibre and various plastics can be used as film carriers.

### Dosage

The EXCOR® VALENO® Layertray requires a closed outer packaging.

### Development phase of the active substance

After closing the outer packaging, the corrosion protection is fully effective after approx. 30 minutes.

### Effective period

Up to 1 year if the instructions for application are observed. Long-term corrosion protection of up to 15 years is possible if the application instructions, as well as specific logistical and packaging requirements, are observed.

### Important application information

Materials must be checked in advance for their suitability. Our application engineers will be happy to advise you!

### Storage

EXCOR® VALENO® can be stored under normal storage conditions and when protected from direct sunlight, damp and dirt for up to 1 year.

### Quality assurance



EXCOR® tests representative samples from each production of VCI packaging for the content of corrosion inhibitors. The emission rate of the VCI components is tested on a random basis. TÜV Süd certifies the verification and recognition of the measurement methods and QA processes used.

### Environmental management



Since 2020, EXCOR® has been certified according to ISO Standard 14001:2015 and has introduced a corresponding environmental management system. We focus on projects to save electricity and CO<sup>2</sup> emissions. For us, the far-sighted use of resources is the central basis for ecological sustainability.

## Delivery forms

Tray formats up to 495 x 695 x 150 mm  
Layertray printable

## Disposal

Recyclable in terms of material or energy according to local official regulations. Observe the safety information sheet. The film can be separated from the carrier material.

## Health

Not subject to classification according to 1272/2008/EC (CLP Regulation on classification, labelling and packaging).

Poses no danger to skin according to dermatological tests.

No monitoring according to TRGS 615 and TRGS 900.

Please contact us at:



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