

VALENO[®] X-film

EXCOR[®] VALENO[®] X-film combines the established EXCOR[®] VCI corrosion protection with an extremely mechanically durable, multi-layer PE film, produced using a patented manufacturing procedure. With its high mechanical strength, the VALENO[®] X-film is ideal for multiple uses.

The EXCOR[®] corrosion inhibitors are embedded homogeneously into all layers of the polymer matrix. They sublime (turn into gas) on both sides in the surrounding air. As the inhibitors are released from both sides of the film in the same strength, it is not necessary to take account of a particular effective direction. Their homogeneous distribution guarantees rapid but also long-term release of the VCI over at least 2 years. Depending on design, specific metals and alloys are protected – in direct contact and via the vapor phase, through which a protective VCI film is built up on metal surfaces in sealed packaging.

VALENO[®] X-film can also be used for large-scale packaging, e.g. of machines – even when higher mechanical loads are expected during transport. The anti-corrosion properties meet the standards of TL 8135-0043, Level 3. When the VALENO[®] X-film is opened, the protective film evaporates from the metal surface within 1 to 2 hours without any residue. The packed goods can be used without further processing.

▶ ADVANTAGES

- extremely robust and resilient
- high tearing and puncture resistance
- non-slip with good sealing properties
- no danger from skin contact or inhalation if used properly
- meets TL 8135-0043, Level 3

EXCOR[®]: The corrosion protection that comes from the packaging!

▶ Protective effect*

- Type E: steel, cast steel, partly 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, galvanized and tin-plated steel, Cu, brass, aluminum 2xxx (Cu), Al 4xxx (Si > 7%), 5xxx (Mg), 6xxx (Mg, Si), 7xxx (Zn), other Al alloys on request, combinations of the above metals
- Type A: steel, galvanized steel, Cu, brass, aluminum 2xxx (Cu), Mg alloys possible, cast iron

* For metal parts with unusual surface finishes, e.g. very rough surfaces or adhesive residues from processing agents, it is advisable to carry out tests using model packaging in a climate that simulates actual conditions before using EXCOR[®] VCI materials on a large scale. Climate test cabinets and chambers (up to a volume of 16 m³) are available for this purpose at EXCOR[®] Korrosionsforschung GmbH in Dresden.

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Technical data

Brief description	EXCOR® VALENO® X-film is a multi-layered, cross-laminated polyolefin film with VCI active ingredients integrated into the polymer matrix. It is effective on both sides.		
Dosage	1 m ² of film can protect up to 10 m ² of metal surface. As factors such as pretreatment of the parts, packaging design, and logistics processes can influence the protective effect, technical coordination of the dosage may be advisable. Our application engineers will be happy to advise you.		
Development phase of the active ingredient	Approx. 1 hour in an enclosed and sealed packaging space of 1 m ³ and at a temperature of 20 °C. The closer the packaged goods to be protected are to the VCI dispenser, the shorter the development phase.		
Effective period	Up to 2 years from production if application instructions are observed. If the application instructions and specific logistical and technical packaging requirements are observed, long-term corrosion protection of up to 15 years is possible.		
Storage	EXCOR® VALENO® X-film can be stored for up to 3 years as delivered, protected from direct sunlight, moisture, and dirt and under normal storage conditions.		

Technical data	Parameter	Value	Unit	Method
	Grammage	90	g/m ²	DIN EN 2286-2
	Tensile strength (details correspond to resp. average values from multiple determinations)			
	Longitudinal	≥ 75	MPa	EN ISO 527-3
	Transverse	≥ 80	MPa	EN ISO 527-3
	Puncture resistance	≥ 750	g	ASTM D 1709/A
	Water vapor permeability	approx. 0.7	g/(m ² *d)	DIN 53122
	Temperature resistance	-40/+80	°C	

Quality assurance



For each production run of VCI packaging, EXCOR® checks representative samples for the content of corrosion inhibitors. The emission rate of the VCI components is checked by sampling. TÜV Süd certifies the testing, measurement methods, and QM processes used.

Delivery forms

Thickness
35–150 g/m²
Width: 60 - 1,560 mm

Optional
customized printing
Can be made into bags, covers, etc.

Available as standard from the warehouse
EXCOR® VALENO® X-film
Type E, 90 g/m²
1,350 mm x 200 mm

Disposal

Can be recycled for materials or energy in accordance with local regulations.
Observe safety datasheet.

Health

Classification not required under 1272/2008/EC (CLP Regulation on Classification, Labelling and Packaging of Substances and Mixtures).

No risk to the skin in dermatological testing.

No monitoring required under TRGS 615 and TRGS 900.

Contact us at:

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