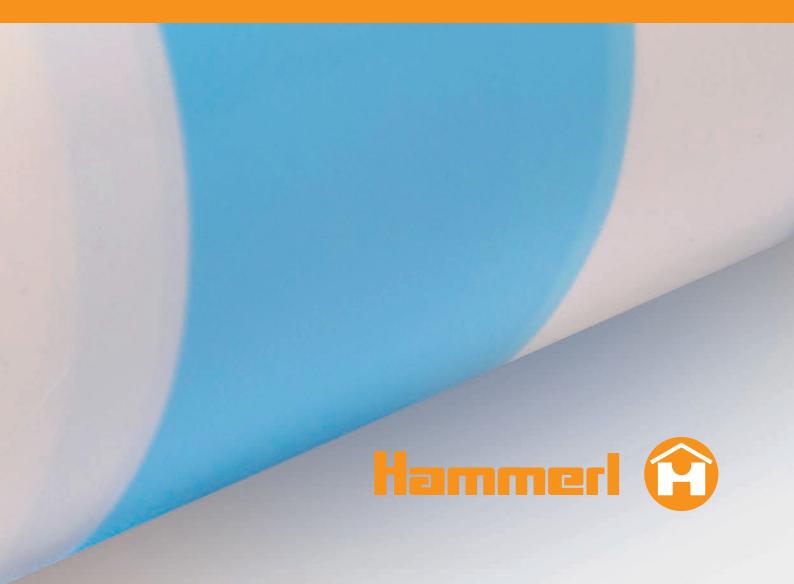


#### Quality – made in Germany



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This product catalogue is valid from 01 January 2019.

With this product catalogue all previous versions of catalogues from Hammerl GmbH lose their validity. All dimensions and weight specifications are subject to a tolerance of +/- 5% (according to GKV). Subject to our general terms of sale and delivery as well as our delivery information, available at www.hammerl.de. We are not liable for potential mistakes in printing or translation. Basis for this catalogue is the German version. Products are subject to modification and development.

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## **Vapour Barrier Sheets**



#### Vapour Barrier Sheets

For wind proofing roofs with rafter insulation. The white and blue stripes are not only a mark of quality but also serve as an ideal cutting aid for cut-outs and pre-cuts during installation.

Our barrier sheets are not vapour permeable.



### Vapour Barrier Sheet blue/white

Vapour Barrier Sheet for wind proofing roofs with rafter insulation Certified according to DIN EN 13984 flammability classification E

Thickness	160 <i>µ</i> m	200 <i>µ</i> m	250 <i>µ</i> m	400 <i>µ</i> m
SD-Value*	110	145	175	370

\*Equivalent air layer thickness Standard sizes: 4 x 25m / 2 x 50m Further sizes upon enquiry



### Vapour Barrier Sheet blue

Vapour Barrier Sheet for wind proofing roofs with rafter insulation Certified according to DIN EN 13984 flammability classification E

Thickness	130 <i>µ</i> m	160 <i>µ</i> m	200 <i>µ</i> m	250 <i>µ</i> m	400 <i>µ</i> m
SD-Value*	> 100	110	145	175	370

\*Equivalent air layer thickness Standard sizes: 4 x 25m / 2 x 50m Further sizes upon enquiry



### Vapour Barrier Sheet white

Vapour Barrier Sheet for wind proofing roofs with rafter insulation Certified according to DIN EN 13984 flammability classification E

Thickness	130 <i>µ</i> m	160 <i>µ</i> m	200 <i>µ</i> m	250 <i>µ</i> m	400 <i>µ</i> m
SD-Value*	> 100	110	145	175	370

\*Equivalent air layer thickness Standard sizes: 4 x 25m / 2 x 50m Further sizes upon enquiry

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Thickness	Size	Blue/white	Blue	White	Rolls/Pallet	Roll weight in kg*
130 <i>µ</i> m	4 x 25 m		Х	Х	75	12.22
160 <i>µ</i> m	4 x 25 m	Х	Х	Х	75	15.04
200 <i>µ</i> m	4 x 25 m 2 x 50 m	X X	X X	X X	52 52	18.80 18.80
250 <i>µ</i> m	4 x 25 m	Х	Х	Х	44	23.50
400 <i>µ</i> m	4 x 25 m	Х	Х	Х	27	37.60

### Standard dimensions, pallets and weights

\*Roll weight in kg according to GKV +/-5%

Further dimensions upon enquiry

### **Printed Vapour Barrier Sheets**

Upon request we customize your Vapour Barrier Sheets with your logo and/or slogan. Contact us!

#### Customized printing available in unicolour black or white

Vapour Barrier Sheet blue Vapour Barrier Sheet white

Max. printing height: 25 mm Max. film width: 4 m

Other printing colours upon enquiry

New available at Hammerl!

### Eco-friendly: Polyethylene (PE) Films

- Polyethylene is an organic material, similar in structure to wood- and plant-fibre, and is a by-product of crude oil refinery.
- Production itself is eco-friendly: no contaminants, harmful fumes or wastewater are released.
- PE-films are physiologically non-hazardous and neutral for groundwater. They do not contain plasticisers or heavy metals.
- Incineration does not produce toxic fumes, gases or slag.
- PE-films are completely recyclable an are re-used as reclaimed material in our production.

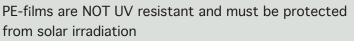
## **Construction Films**

- according to GKV or as Type-Film with minus-tolerance upon customer request -



#### **Construction and Protective Films**

Our PE Construction Films have a variety of uses: To cover door and window openings, for curing concrete, below liquid screed, to protect floors during painting and plastering, as dust protection, to secure excavation pits, etc.





### **PE-Construction Film transparent**

#### Construction and protective film, natural PE

Thickness: 30 – 500  $\mu \rm m$  Width: 1,5 – 8 m Length: individual, depending on thickness

### **PE-Construction Film transparent II**

#### Construction and protective film, reclaimed natural PE

Thickness: 50 – 200  $\mu$ m Width: 1,5 – 6 m Length: individuell, je nach Stärke

#### Light-grey tint

Rolls per pallet upon enquiry

The alterative: as transparent as necessary, as transparent as possible

#### **PE-Construction Film translucent**

#### Construction and protective film, sorted reclaimed PE

Thickness: 30 – 500  $\mu m$  Width: 1,5 – 8 m Length: individual, depending on thickness



### **PE-Construction Film opaque**

#### Construction and protective film, recycled PE

Thickness: 60 – 500  $\mu m$  Width: 1,5 – 8 m Length: individual, depending on thickness

### **PE-Construction Film black**

#### Construction and protective film sorted reclaimed PE – dyed black

Thickness: 60 – 500  $\mu m$  Width: 1,5 – 8 m Length: individual, depending on thickness

Rolls per pallet upon enquiry



#### **PE-Construction Film flat / not folded**

#### Flat construction and protective film, reclaimed PE available in transparent, translucent and opaque

Thickness: 30 – 200  $\mu$ m Width: 1 – 2 m Length: individual, depending on thickness

Rolls per pallet upon enquiry





Thickness	Size	Transparent	Translucent	Opaque	Rolls/Pallet	Roll weight in kg*
30 <i>µ</i> m	2 x 100 m 4 x 100 m	X X	X X		100 75	5.52 11.04
40 <i>µ</i> m	2 x 100 m 4 x 100 m	X X	X X		100 75	7.36 14.72
50 <i>µ</i> m	2 x 50 m 2 x 100 m 3 x 50 m 4 x 50 m 2 x 100 m	X X X X X	X X X X X		100 75 100 75 52	4.60 9.20 6.90 9.20 9.20
60 <i>µ</i> m	2 x 50 m 3 x 50 m 4 x 50 m	X X X	X X X	X X X	100 75 75	5.52 8.28 11.04
80 <i>µ</i> m	2 x 50 m 3 x 50 m 4 x 50 m	X X X	X X X	X X X	100 75 75	7.36 11.04 14.72
100 <i>µ</i> m	2 x 50 m 3 x 50 m 4 x 25 m 4 x 50 m 6 x 25 m 6 x 50 m	X X X X X X X	X X X X X X	X X X X X X	75 75 75 52 75 52	9.20 13.80 9.20 18.40 13.80 27.60
120 <i>µ</i> m	2 x 50 m 3 x 50 m 4 x 25 m 4 x 50 m 6 x 25 m 6 x 50 m	X X X X X X X	X X X X X X X	X X X X X X	75 52 75 44 60 40	11.04 16.56 11.04 22.08 16.56 33.12
150 μm	2 x 50 m 3 x 50 m 4 x 25 m 4 x 50 m 6 x 25 m 6 x 50 m	X X X X X X X	X X X X X X	X X X X X	75 52 75 44 60 40	13.80 20.70 13.80 27.60 20.70 41.40
200 <i>µ</i> m	2 x 50 m 3 x 50 m 4 x 25 m 4 x 50 m 6 x 25 m 6 x 50 m	X X X X X X X	X X X X X X	X X X X X X	52 52 52 33 52 30	18.40 27.60 18.40 36.80 27.60 55.20
300 <i>µ</i> m	2 x 50 m 4 x 25 m 4 x 50 m	X X X	X X X	X X X	44 44 22	27.60 27.60 55.20
400 <i>µ</i> m	4 x 25 m	Х	Х	Х	27	36.80
500 <i>µ</i> m	4 x 25 m	Х	Х	Х	27	46.00

### Standard dimensions, pallets and weight

\*Roll weight in kg according to GKV +/-5%

Special dimensions available upon enquiry. Upon request films are manufactured with tolerance according to your specifications

# **Special Films**



... we can do more than standard ...

Amongst our special films you can find anti-skid films, tubular films, customized films, printed as well as in individual dimensions or colours Ask us – we are happy to help!



#### **Anti-Skid Film**

Anti-skid film manufactured with coarse graining - available in translucent, grey and white

Various uses e.g. when painting or plastering.

### **PE-Film** white

Construction and protective film, sorted reclaimed PE – white

Thickness:  $100 - 500 \ \mu m$ Width: 1,5 - 8 m Length: 25 + 50 m

Ideal for covering and transporting chopped wood (or wood shavings)

### **Provisional Down Pipe**

As provisional replacement of down pipes this tubular film reliably diverts rain water, thus protecting masonry and insulation during renovation.

#### LD-PE provisional down pipe

Transparent 90 my Width (flat): 210 mm Diameter: approx. 130 mm Length: 100 m

6 rolls/box, 144 rolls / pallet



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### Wall Sheeting

#### Prevents rainwater from entering masonry during construction.

#### Available in original or reclaimed LDPE

Thickness: Width: Length: Pallet: 100 μm 700 mm 100 m 100 rolls (minimum order quantity)

**Print options:** LPDE film original: LDPE film reclaimed:

up to 4 colours (+ printing plate cost) unicolour (+ printing plate cost)



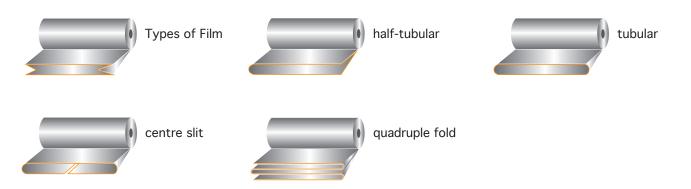
### **Tubular Film**

Various uses due to the different sizes available from 600 mm to 2,000 mm width.

For example as transport or protective wrapping.



### Types of Film Folding



### Liquid Screed Membrane

Special membrane below flooring with vapour barrier characteristics sorted reclaimed PE - blue

Thickness:  $100 + 200 \,\mu\text{m}$ Width: 1,5 - 8 m Length: 10 - 50 m

### **Printed Films**

Upon request we customise your film with your company logo and/or slogan. Ask us!

#### Individual print unicolour black or white available for all films

max. print height: 25 mm max. film width: 4 m

Other print colours upon enquiry.

#### **Scaffolding Sheet**

Opaque PE-film with anti-skid characteristics made of recycled PE Ideal for spreading scaffolding due to its thickness

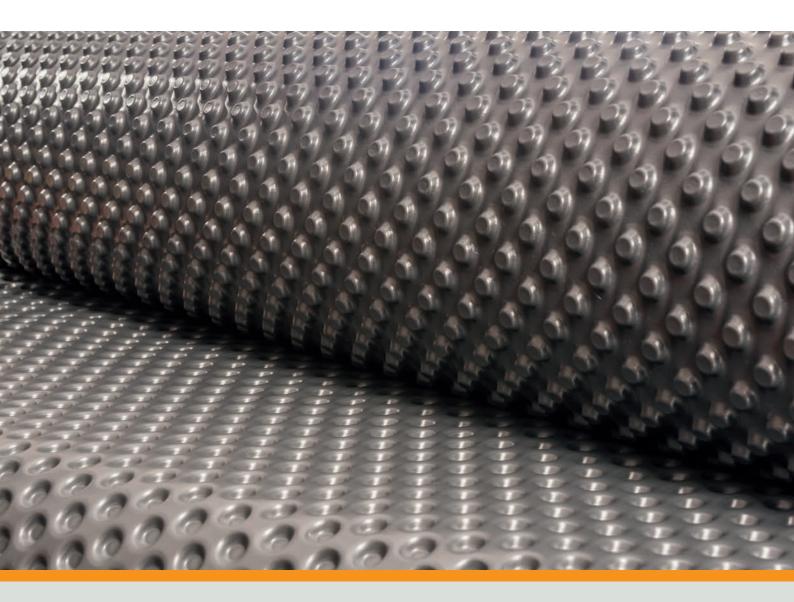
Thickness: 250 µm Width: 1,25 m Length: 50 m

New available at Hammerl!



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## **Dimpled Sheets**



#### **Dimpled Sheets**

HD-PE dimpled sheets are primarily for the protection of foundation wall insulation during refilling of the excavation pit. They can also be used to cover firewood, to border garden beds or for protection of gabions.



As of September 2018, our Dimpled Sheets Basic Plus, Premium and Premium Plus are CE-certified.

### **Two Layered Dimpled Sheet**

- High Density Polyethylene
- Safe for groundwater
- Resistant against chemicals, rot and water
- Temperature resistant -30°C to +80°C

Dimple height: approx. 7 mm Noppenanzahl: > 1.930 m<sup>2</sup> Number of dimples: 5,02 l/m<sup>2</sup> Air volume (between dimples): 1.510 cm<sup>2</sup>/m<sup>2</sup> Roll length: 20 m



	Compressive strength	Use
Premium	up to 400 $kN/m^2$	Foundation wall protection
Premium Plus	up to 450 kN/m <sup>2</sup>	Foundation wall protection/ blinding layer
Basic Plus	up to 310 kN/m <sup>2</sup>	Mainly used as blinding layer

Width	Rolls / Pallet
0.5 m	48
1.0 m	24
1.5 m	12
2.0 m	12
2.5 m	12
3.0 m	16

#### Use in foundation wall protection

Our dimpled sheets Premium and Premium Plus are made of high-density polyethylene - HDPE – and are used for foundation wall protection. They are installed with the dimples facing the masonry. This way they reliably absorb impact during the refilling of the construction pit and compacting of the soil.

They conform to basic requirements for plastics according to DIN EN 13967 such as rear ventilation, protection during refilling and compacting.

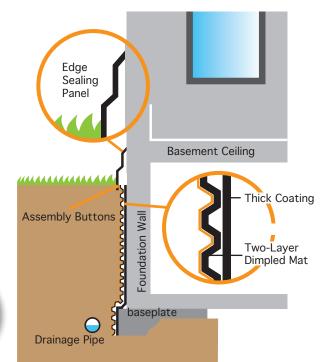
#### Use in base plates

Our dimpled sheet Basic Plus has been specifically designed as a cost and time saving alternative to lean concrete blinding layers. There is no waiting time for concrete drying.

It is available in 3m width.

The use of dimpled sheets as blinding layer has been tested by the "Labor für Bodenmechanik, Erd- und Grundbau" in Münster, Germany.

The sheets should overlap approx. 20 cm.



nschule A

Labor für

Bodenmechanik,

Erd- u. Grundba

Ch Bauing

#### Dimpled Sheet with Geomembrane 250 kN (kilonewton)

- Safe for groundwater
- Optimal protection and drainage for masonry
- Root and rot proof
- High compressive strength
- Temperature resistant -40 to + 80°C
- Resistant to fungi and bacteria
- Ideal refilling protection

**Dimpled Sheet:** 

Geomembrane:

Area weight:

Dimple height:

Number of dimples:

Drainage capacity:

HDPE Material dimpled sheet: Material geomembrane: PP approx. 500 g/m<sup>2</sup> approx. 110 g/m<sup>2</sup> approx. 610 g/m<sup>2</sup> 8 mm approx. 1,860/m<sup>2</sup> approx. 2.1 l/s/m according to DIN EN ISO 12958 Transmissivity of membrane: approx. 70 l/s/m Compressive strength: approx. 250 kN/m<sup>2</sup> (25 t/m<sup>2</sup>)

The dimpled sheet with geomembrane protects the water proofing of the foundation wall from mechanical damage and provides reliable drainage of seepage water. It protects the masonry from penetrating moisture and provides additional insulation. Due to its filtering effect it prevents silting of the area between dimples.

#### Dimpled Sheet with Geomembrane and Sliding Film 250 kN

- Safe for groundwater
- Optimal protection and drainage for masonry
- Root and rot proof
- High compressive strength
- Temperature resistant -40 to + 80°C
- Resistant to fungi and bacteria
- Ideal refilling protection

Material dimpled sheet:	HDPE	
Material geomembrane:	PP	
Material sliding film:	LDPE	
Dimpled Sheet:	approx. 500 g/m <sup>2</sup>	
Geomembrane:	approx. 110 g/m <sup>2</sup>	
Area weight:	approx. 710 g/m <sup>2</sup>	
Dimple height:	8 mm	
Number of dimples:	approx. 1,860/m <sup>2</sup>	
Air volume:	approx. 5.3 l/m <sup>2</sup>	
Drainage capacity:	approx. 2.1 l/s/m according	to DIN EN ISO 12958
Transmissivity of membrane:	approx. 70 l/s/m	
Compressive strength:	approx. 250 kN/m <sup>2</sup> (25 t/m <sup>2</sup>	2)

The dimpled sheet with geomembrane and sliding film protects the soft waterproofing of the foundation wall and therefore prevents moisture from entering the masonry. The sliding film, installed facing the foundation wall, adheres to the waterproofing thus enabling the dimpled sheet to separate when tractive and shearing forces are applied during settling of the filling material. This way the waterproofing and therefore the foundation wall is protected from damage. It also acts as load spreading layer. The geomembrane with its filtering effect acts against silting of the area between dimples. It thus ensures reliable drainage of seepage water.

#### Dimpled Sheet with geomembrane 420 kN

- Safe for groundwater
- Optimal protection and drainage for masonry
- Root and rot proof
- High compressive strength
- Temperature resistant -40 to + 80°C
- Resistant to fungi and bacteria
- Ideal refilling protection Material dimpled sheet:

Material geomembrane:

Dimpled Sheet:

Geomembrane:

Area weight:

Dimple height:

Number of dimples:

Compressive strength:

Drainage capacity:

HDPE PP approx. 600 g/m<sup>2</sup> approx. 136 g/m<sup>2</sup> approx. 740 g/m<sup>2</sup> 10 mm approx. 3,369/m<sup>2</sup> approx. 3.5 l/s/m according to DIN EN ISO 12958 Transmissivity of membrane: approx. 50 l/s/m approx. 420 kN/m<sup>2</sup> (42 t/m<sup>2</sup>)

The dimpled sheet with geomembrane protects the water proofing of the foundation wall from mechanical damage and provides reliable drainage of seepage water. It protects the masonry from penetrating moisture and provides additional insulation. Due to its filtering effect it prevents silting of the area between dimples Vertical and horizontal installation possible. Useable also as horizontal drainage of grassed areas and for area drainage.

#### Dimpled Sheet with geomembrane and sliding Film 420 kN

- Safe for groundwater
- Optimal protection and drainage for masonry
- Root and rot proof
- High compressive strength
- Temperature resistant -40 to + 80°C
- Resistant to fungi and bacteria
- Ideal refilling protection

Material dimpled sheet:	HDPE
Material geomembrane:	PP
Material sliding film:	LDPE
Dimpled Sheet:	approx. 600 g/m <sup>2</sup>
Geomembrane:	approx. 136 g/m <sup>2</sup>
Area weight:	approx. 840 g/m <sup>2</sup>
Dimple height:	10 mm
Number of dimples:	approx. 3,369/m <sup>2</sup>
Drainage capacity:	approx. 3.5 l/s/m according to DIN EN ISO 12958
Transmissivity of membrane:	approx. 50 l/s/m
Compressive strength:	approx. 420 kN/m <sup>2</sup> (42 t/m <sup>2</sup> )

The dimpled sheet with geomembrane and sliding film protects the waterproofing of the foundation wall and therefore prevents moisture from entering the masonry. The sliding film, installed facing the foundation wall, adheres to the waterproofing thus enabling the dimpled sheet to separate when tractive and shearing forces are applied during settling of the filling material. The waterproofing layer as well as the foundation wall are therefore protected from compressive stress. The geomembrane with its filtering effect acts against silting of the area between dimples. It thus ensures reliable drainage of seepage water.

Vertical and horizontal installation possible. Useable also as horizontal drainage of grassed areas and for area drainage.

#### **Dimpled Sheet 20 mm**

- Safe for groundwater
- Resistant to chemicals
- Root and rot proof
- Resistant to fungi and bacteria
- Temperature resistant -40 to + 80°C

Width: Length: Rolls per pallet: Material dimpled sheet: Dimple height: Number of dimples: Air volume between dimples: Drainage capacity:

Area weight: Compressive strength: 20 m 5 HDPE 20 mm approx. 400 /m<sup>2</sup> approx. 14 l/m<sup>2</sup> approx. 10 l/s/m, approx. 600 l/min/m, approx. 36,000 l/h/m approx. 800 g/m<sup>2</sup> respectively 1,000 g/m<sup>2</sup> approx. 160 kN/m<sup>2</sup> (16 t/m<sup>2</sup>) respectively 240 kN/m<sup>2</sup> (24 t/m<sup>2</sup>)

Particularly suitable for tunnel construction, where the exposure to fissure water and layer groundwater is very high. The sheet has a high drainage capacity and ensures the controlled diversion of water into designated drainage and seeping layers. It is extremely robust and can be used as permanent shuttering.

2 - 2.5 m

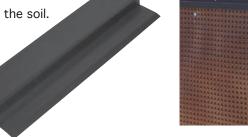
Also available with geomembrane.



## **Edge Sealing Panel**

The panel provides a clean finishing of the dimpled sheet, creating an edge above the ground or drainage layer. The panel is attached to the wall after compression of the soil.

Length: 2 m 20 pc/bundle



### **Assembly Buttons**

For fixing dimpled sheets to wall above water proofing.

5,000 pc/bag Additionally bagged in 250 pc/bag



### Standard dimensions and pallets

Dimpled Sheet	Width	Length	Rolls / Pallet	m² / Pallet
Premium	0.5 m 1 m 1.5 m 2 m 2.5 m 3 m	20 m 20 m 20 m 20 m 20 m 20 m	48 24 12 12 12 12 16	480 480 360 480 600 900
Premium Plus	0.5 m 1 m 1.5 m 2 m 2.5 m 3 m	20 m 20 m 20 m 20 m 20 m 20 m	48 24 12 12 12 12 16	480 480 360 480 600 900
Basic Plus	3 m	20 m	16	960
with geomembrane 250 kN	1 m 2 m 2.5 m	15 m / 20 m 15 m / 20 m 15 m / 20 m	12 / 12 6 / 6 6 / 6	180 / 240 180 / 240 225 / 300
with geomembrane and sliding film 250 kN	2 m 2.5 m	15 m / 20 m 15 m / 20 m	6 / 6 6 / 6	180 / 240 225 / 300
with geomembrane 420 kN	2 m	12.5 m	6	150
with geomembrane and sliding film 420 kN	2 m	12.5 m	6	150
Dimpled Sheet 20 mm	2 m 2.5 m	20 m 20 m	5 5	200 250
Dimpled Sheet 20 mm with geomembrane	2 m 2.5 m	12.5 m 12.5 m	4 4	100 125

### **Quick Installation Guide**

Premium and Premium Plus: Dimpled Sheet with Geomembrane: Dimpled Sheet with Geomembrane and Film: Dimples facing the wall Geomembrane facing ground / drainage layer Geomembrane facing ground / drainage layer

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## Sustainable and eco-friendly – in more than our products

Optimizing energy and products is highly important to us. This applies to film production as well as the process of packaging. Various procedures lead to a substantial reduction of CO2 emissions. The Hammerl energy management has been certified according to ISO 50001 since 2011.



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