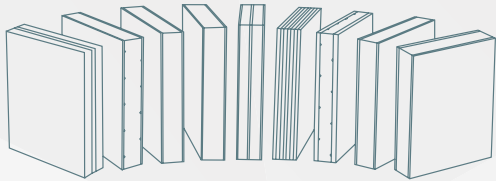


# COSMO® Composite panels

Unlimited possibilities for design



**weiss**



Quality, service and high delivery reliability are the basic pillars of the success of our group of companies. We have continuously improved and further developed our portfolio in the last years; this also includes the acquisition of new companies. By now, about 325 employees at four sites participate in the success of our group.



Company

By pooling the core competences of our business segments of adhesives and composite panels under a single roof, we are able to offer solutions from one source to our customers that are efficient and of high technical quality.

We are among the leading manufacturers in these two business segments in Europe and moreover, we also increasingly sell our products outside of Europe, such as in China, Russia and the USA.

Company history

Since the company's foundation in 1815, Weiss has developed from a small hide-glue producer to an internationally acting, industrial company for modern adhesive systems and composite panels. With a passion for quality and the aspiration to meet our customers' high expectations, we are a recognised and reliable partner on the market.

! Weiss is the only enterprise that produces adhesives and composite panels.

Powerful product range

Division Adhesives



Durably firm joints

Traditional bonding technologies like riveting, soldering, welding, or screwing are more and more replaced by modern adhesive systems, resulting in many advantages. Our product range includes more than 400 variants of surface and construction adhesive and superglues, as well as special adhesives for a wide variety of applications.

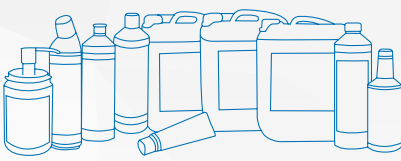
Division Composite panels



Unlimited possibilities for design

Our range of products includes more than 5,000 variants of composite panels. Because there is a large number of top coats and core materials available as well as the possibility of combining and processing them in many different ways, a vast number of creative designs results for the finished element.

PUDOL Cleaning and maintenance products



Cleanliness refreshes your senses

PUDOL stands for convincing quality of special products in the field of commercial cleaning. In addition to a complete range of cleaning and care products for different applications, we are offering a comprehensive service with interesting solutions and benefits.

A subsidiary of the Weiss Group

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composite panels

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Silent

Sound-insulating  
composite panels

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# Applications

## COSMO® Composite Panels & Façade Elements

### Unlimited possibilities for design

Are you looking for a suitable composite panel for your application in industry or trade? Then, here is just the right place to be for you!

Our range of composite panels currently includes more than 5,000 variants. These solely consist of high grade material components and are bonded with a long-term approved adhesive system that has especially been developed for this purpose in our house. The result is a Premium Composite Panel that can fully convince with its quality, robustness and durability.

Because there is a large number of top coats and core materials available as well as there is the possibility of combining them in many different ways, a vast number of creative designs results for the finished composite panel.

As a member of the ift (Institut für Fenstertechnik), we regularly test newly and further developed composite panels for heat and noise reducing and/or penetration-resistive properties. With this, we are offering the maximum level of safety to you, because the measured test values are not only achieved in practice but often exceeded.

### Fields of application

We are offering suitable composite panels for many different fields of application.



Automotive manufacturing



Door construction



Industry



Burglar/penetration resistance



Trailer construction



Gate construction



Partition panel construction



Fire protection



Container construction



Window and façade



Ship and yacht building



Sound proofing



### Development

In close cooperation with our customers we create solutions that are customised for the respective range of application.

Our team of materials testers and application engineers with long-term experience in the fields of materials science and building physics would be pleased to be on hand with advice to help you.



### Customer-specific solutions

We are offering customised composite panels for your special applications. Because a large number of different top coats and core materials is available as well as there is the possibility of combining them in many different ways, a vast number of creative designs results for the finished element.



### Delivery service

With our range of products of more than 5,000 article variants we are offering to our customers a large assortment of heat and sound-insulating composite panels.

In addition, many of our core products are constantly available from our warehouse or will be deliverable in a short time.

### Certified quality

Weiss delivers composite panels of constant top-quality. In order to be able to permanently ensure this quality, we are cooperating with different testing institutes, e.g. ift Rosenheim, MPA NRW and CSTB.



**Burglary resistance measured by ball test**  
DIN EN 356 P5A



**Pendulum test**  
DIN EN 12600 class



**Burglary resistance measured by axe test**  
DIN EN 356, P6B to P8B



**Thermal performance**  
as per EN ISO 10077-2



**Airborne sound insulation**  
as per EN ISO 717-1



**Fire protection**  
as per DIN 4102-1 and EN 13501-1

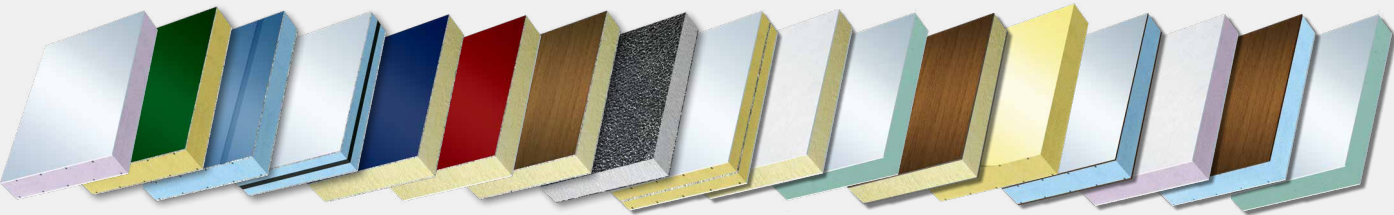
**! Various test certificates are available for the mentioned tests.**

# Design of composite panels

## COSMO® Composite Panels & Façade Elements



Our composite panels are composed of a variety of different material combinations that can be designed individually.



### Top coats

The external layers of a composite panel are called top coats and can consist of the following materials:

- **ALU** (aluminium)
- **PVC** (polyvinylchloride)
- **HPL** (high-pressure laminated panels)
- **GFK** (GRP - glass fibre reinforced plastics)
- **CFK** (carbon fibre reinforced plastics)
- **EPO** (epoxy resin)
- **HD** (decorative films)
- **SPE** (plywood)
- **DSP** (thin chipboard)

The upper and the lower top coat can consist of the same material or of different materials.

### Core material

"Core material" is our designation for the inner components of our composite panels that can consist of the following materials:

- **XPS** (extruded polystyrene rigid foam)
- **PUR** (polyurethane rigid foam)
- **TK** (thermoplastic plastics)
- **MIN** (mineral fibre insulating material)
- **PR** (polyurethane recycling panel)
- **EPS** (expanded polystyrene rigid foam)
- **PUR/AL** (polyurethane rigid foam/ aluminium)

### Special inserts

- Sound-insulating heavy film
- Burglar-resistant aluminium insert

### Design

Design of a composite panel

Top coat

Core material

Top coat

COSMO® Therm - HPL

double-sided HPL, PUR-AL core

HPL

Aluminium

PUR

COSMO® Therm - PVC

PVC on both sides, XPS core

PVC

XPS

PVC

COSMO® Silent - HPL/HD

HPL/HD on both sides, XPS core, heavy film insert

HD

HPL

XPS

dB

## COSMO® Therm

### Heat-insulating composite panels

For many years, these composite panels with different plastic, aluminium and wood surfaces have proven to be successful. Because there is a large number of top coats and core materials available as well as there is the possibility of combining them in many different ways, a vast number of creative designs results for the finished element.

#### COSMO® Therm - ALU

ALU on both sides, XPS core



##### Top coats

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

##### Core material

Polystyrene-rigid foam, extruded (XPS)

##### tests

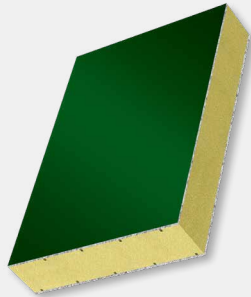
- Pendulum test as per DIN EN 12600 class 1
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

##### Special Properties

- Moisture-resistant
- Free from CFC and HCFC

##### Standard sizes (mm)

- Top coat 1.0 mm:** 2500x1250, 3000x1500
- Top coat 1.2 mm:** 2000x900, 2000x1000, 2500x1250, 3000x1500
- Top coat 1.5 mm:** 2000x900, 2000x1000, 2500x1250, 3000x1500



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
20	1.0	18	6.5	28	0.033	1.398
20	1.2	18	7.6	28	0.033	1.398
20	1.5	17	9.2	28	0.033	1.459
24	1.0	22	6.7	28	0.033	1.195
24	1.2	22	7.7	28	0.033	1.195
24	1.5	21	9.3	28	0.033	1.240
27	1.0	25	6.8	28	0.033	1.078
27	1.2	25	7.8	28	0.033	1.078
27	1.5	24	9.4	28	0.033	1.114
30	1.0	28	6.9	28	0.033	0.982
30	1.2	28	7.9	28	0.033	0.982
30	1.5	27	9.5	28	0.033	1.012
33	1.0	31	7.0	28	0.033	0.901
33	1.2	31	8.0	28	0.033	0.901
33	1.5	30	9.6	28	0.033	0.927



# COSMO® Therm

## Heat-insulating composite panels

### COSMO® Therm - ALU

ALU on both sides, PUR core

#### Top coats

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

#### Core material

Polyurethane hard foam (PUR)

#### tests

- Pendulum test as per DIN EN 12600 class 1
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
20	1.5	17	9.5	28	0.026	1.214
20	2.0	16	12.2	28	0.026	1.273
24	1.5	21	9.7	28	0.026	1.023
24	2.0	20	12.4	28	0.026	1.065
27	1.5	24	9.9	28	0.026	0.915
27	2.0	23	12.5	28	0.026	0.948
30	1.5	27	10.0	28	0.026	0.827
30	2.0	26	12.7	28	0.026	0.855
33	1.5	30	10.2	28	0.026	0.755
34	2.0	30	12.9	28	0.026	0.755

### COSMO® Therm - ALU

ALU on one side, PUR core, PVC on rear side white

#### Top coats

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

#### Core material

Polyurethane hard foam (PUR)

#### tests

- Pendulum test as per DIN EN 12600 class 1
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	1.5	21	7.8	28	0.026	1.023
40	1.5	37	8.6	28	0.026	0.628



### COSMO® Therm - ALU/HD

ALU/HD on both sides, PUR core

#### Top coats

Aluminium  
200µ decorative film on surface

#### Core material

Polyurethane hard foam (PUR)

#### tests

- Pendulum test as per DIN EN 12600 class 1
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
20	1.5	17	9.5	28	0.026	1.214
24	1.5	21	9.7	28	0.026	1.023
27	1.5	24	9.9	28	0.026	0.915
30	1.5	27	10.0	28	0.026	0.827
33	1.5	30	10.2	28	0.026	0.755

#### Special Properties

- UV- and weather-resistant
- Moisture-resistant
- Free from CFC and HCFC

#### Standard sizes (mm)

2000x900, 2150x1150



More than 200 different wood decors and universal films available from our warehouse



# COSMO® Therm

## Heat-insulating composite panels

### COSMO® Therm - ALU/Stucco

ALU/Stucco on both sides, EPS core

#### Top coats

Aluminium, semi-hard, surface uncoated, Stucco patterned

#### Core material

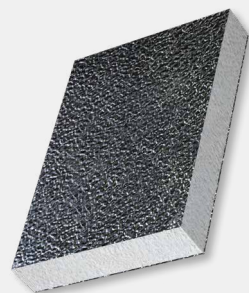
Polystyrene-rigid foam, expanded (EPS)

#### Special Properties

- Moisture-resistant
- Free from CFC and HCFC

#### Standard sizes (mm)

3100x1250



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
14	0.5	13	3.4	0.040	2.020
16	0.5	15	3.5	0.040	1.835
21	0.5	20	3.6	0.040	1.493
24	0.5	23	3.6	0.040	1.342
28	0.5	27	3.7	0.040	1.183

### COSMO® Therm - ALU/Stucco

ALU on both sides, PUR core

#### Top coats

Aluminium, semi-hard, surface uncoated, Stucco patterned

#### Core material

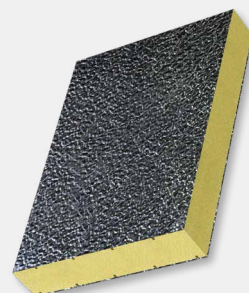
Polyurethane hard foam (PUR)

#### Special Properties

- Moisture-resistant
- Free from CFC and HCFC

#### Standard sizes (mm)

3100x1250



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
16	0.5	14.5	3.7	0.026	1.374
20	0.5	18.6	3.8	0.026	1.129

### COSMO® Therm - PVC

PVC on both sides, XPS core



#### Top coats

PVC

#### Core material

Polystyrene-rigid foam, extruded (XPS)

#### tests

- Category of resistance / DIN EN 356 P5A / ift test report 213 33640
- Pendulum test / DIN EN 12600 class 1 / ift test report 213 33637
- Airborne sound insulation\* as per EN ISO 717-1 Rw 27 (-1;-2) dB / ift test report 164 32607/Z7 (\* only panel thickness 24mm)
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- Increased impact resistance as per DIN 53453
- Weather-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- Moisture-resistant
- CFC- and HCFC-free
- PVC cold weldable using adhesive COSMO® SL-660.110

#### Standard sizes (mm)

2000x1000, 3000x1500, 3000x2000, 4000x2000



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
10	1.0	8.0	3.3	–	0.033	2.357
17	2.0	13	6.4	30	0.033	1.702
20	1.0	18	3.6	–	0.033	1.375
20	1.5	17	5.0	27	0.033	1.423
20	2.0	16	6.9	30	0.033	1.474
23	1.0	21	4.0	–	0.033	1.222
23	1.5	20	5.4	27	0.033	1.260
24	1.0	22	4.0	–	0.033	1.179
24	1.3	21	4.6	–	0.033	1.217
24	1.5	21	5.4	27	0.033	1.214
24	2.0	20	6.5	30	0.033	1.251
27	1.0	25	4.1	–	0.033	1.065
27	1.5	24	5.5	27	0.033	1.093
30	1.0	28	4.2	–	0.033	0.971
30	1.5	27	5.6	27	0.033	0.994
30	2.0	26	6.8	30	0.033	1.019
33	1.0	31	4.3	–	0.033	0.892
33	1.5	30	5.7	27	0.033	0.912
34	2.0	30	6.9	30	0.033	0.907
44	1.0	42	4.6	–	0.033	0.688
49	2.0	45	7.4	30	0.033	0.642



COSMO® Therm

Heat-insulating composite panels

COSMO® Therm - PVC

PVC on both sides, XPS core



Top coats

PVC

Core material

Polystyrene-rigid foam, extruded (XPS)

tests

- Category of resistance / DIN EN 356 P5A / ift test report 213 33640
- Pendulum test / DIN EN 12600 class 1 / ift test report 213 33637
- Airborne sound insulation\* / as per EN ISO 717-1 Rw 27 (-1;-2) dB / ift test report 164 32607/Z7 (\* only panel thickness 24mm)
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Special Properties

- Extremely low GWP factor (Global Warming Potential)
- Increased impact resistance as per DIN 53453
- Weather-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- Moisture-resistant
- CFC- and HCFC-free
- cold weldable using COSMO® SL-660.110

Standard sizes (mm)

2000x1000, 3000x1500, 3000x2000

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
24	1.5	21	5.1	27	0.029	1.097
36.5	1.5	33.5	5.6		0.029	0.745

COSMO® Therm - PVC

PVC on both sides, XPS core



Top coats

PVC

Core material

Polystyrene-rigid foam, extruded (XPS)

tests

- Pendulum test / DIN EN 12600 class 1 / ift test report 213 33637
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Special Properties

- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- Moisture-resistant
- CFC- and HCFC-free
- Paintable using the paint system recommended by us
- cold weldable using COSMO® SL-660.110

Standard sizes (mm)

2000x1000, 3000x1500, 3000x2000

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
23.6	1.3	21	4.5	27	0.033	1.217
24	1.0	22	3.8		0.033	1.179
24	1.5	21	5.1		0.033	1.097
27.6	1.3	25	5.1	27	0.033	1.061
31.6	1.3	29	5.2	27	0.033	0.940
35.6	1.3	32	5.3	27	0.033	0.866

COSMO® Therm - PVC

PVC on both sides, PUR core



Top coats

PVC

Core material

Polyurethane hard foam (PUR)

tests

- Pendulum test / DIN EN 12600 class 1 / ift test report 213 33637
- Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Special Properties

- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant, moisture-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- CFC- and HCFC-free
- Paintable using the paint system recommended by us
- cold weldable using COSMO® SL-660.110

Standard sizes (mm)

2150x950, 2000x1000, 3000x1500, 3000x2000

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
18	1.5	15	5.5	27	0.026	1.308
23	1.5	20	5.8	27	0.026	1.045
24	1.5	21	5.8	27	0.026	1.005
27	1.5	24	6.0	27	0.026	0.900
28	1.5	25	6.0	27	0.026	0.870
33	1.5	30	6.3	27	0.026	0.745
43	1.5	40	6.8	27	0.026	0.579



COSMO® Therm - HPL

HPL on both sides, XPS core



Top coats

High-pressure laminated panels (HPL)

Core material

Polystyrene-rigid foam, extruded (XPS)

tests

Reaction to fire test as per DIN EN 13501-1 /  
Class of fire E

Special Properties

- Impact- and shock-resistant as per DIN EN 438/2
- UV- and weather-resistant
- Mechanical resistance: Resistant to abrasion, shock and scratching
- Chemical resistance to: Organic solvents, weak acids and leaches, fuel, oil, resistant to bacteria and fungus attack
- Moisture-resistant
- CFC- and HCFC-free

Standard sizes (mm)

2150x900, 2150x1150, 2800x1860, 2800x2070,  
3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	2.0	16	6.7	0.033	1.497
24	2.0	20	6.8	0.033	1.267
30	2.0	26	7.0	0.033	1.030
33	2.0	29	7.1	0.033	0.942
40	2.0	36	7.3	0.033	0.785

COSMO® Therm - HPL

HPL on both sides, PUR core



Top coats

High-pressure laminated panels (HPL)

Core material

Polyurethane hard foam (PUR)

tests

Reaction to fire test as per DIN EN 13501-1 /  
Class of fire E

Special Properties

- Impact- and shock-resistant as per DIN EN 438/2
- UV- and weather-resistant
- Mechanical resistance: Resistant to abrasion, shock and scratching
- Chemical resistance to: Organic solvents, weak acids and leaches, fuel, oil, resistant to bacteria and fungus attack
- Moisture-resistant
- Low weight
- CFC- and HCFC-free

Standard sizes (mm)

2150x900, 2150x1150, 3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	2.0	16	7.0	0.026	1.252
24	2.0	20	7.2	0.026	1.050
27	2.0	23	7.3	0.026	0.936
30	2.0	26	7.5	0.026	0.845
40	2.0	36	8.0	0.026	0.638

COSMO® Therm - HPL/HD

HPL on one side, decorative film, XPS core, PVC on rear side, white



Top coats

High-pressure laminated panels (HPL)  
with 200μ decorative film on surface

Core material

Polystyrene-rigid foam, extruded (XPS)

tests

Reaction to fire test as per DIN EN 13501-1 /  
Class of fire E

Special Properties

- UV- and weather-resistant (HPL)
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1(PVC)
- Increased impact resistance (PVC)
- Weather-resistant (PVC)
- CFC- and HCFC-free

Standard sizes (mm)

2150x900, 3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
23.5	2.0/1.5	20	6.1	0.033	1.267



# COSMO® Therm

## Heat-insulating composite panels



### COSMO® Therm - HPL/HD

HPL on both sides, coated with decorative film, XPS core



#### Top coats

High-pressure laminated panels (HPL) with 200µ decorative film on surface

#### Core material

Polystyrene-rigid foam, extruded (XPS)

#### tests

- Reaction to fire test as per DIN EN 13501-1 / Class of fire E
- Pendulum test / DIN EN 12600 class 1 / ift test report 213 33637

#### Special Properties

- UV- and weather-resistant
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm)

2150x900, 2150x1150, 3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	2.0	16	7.2	0.033	1.497
24	2.0	20	7.4	0.033	1.267
25	2.0	21	7.4	0.033	1.220
30	2.0	26	7.6	0.033	1.030
33	2.0	29	7.7	0.033	0.942

### COSMO® Therm - HPL/HD

HPL on one side, decorative film, XPS core, HPL on rear side, white



#### Top coats

High-pressure laminated panels (HPL) with 200µ decorative film on surface

#### Core material

Polystyrene-rigid foam, extruded (XPS)

#### tests

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- UV- and weather-resistant (HPL)
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1 (PVC)
- CFC- and HCFC-free

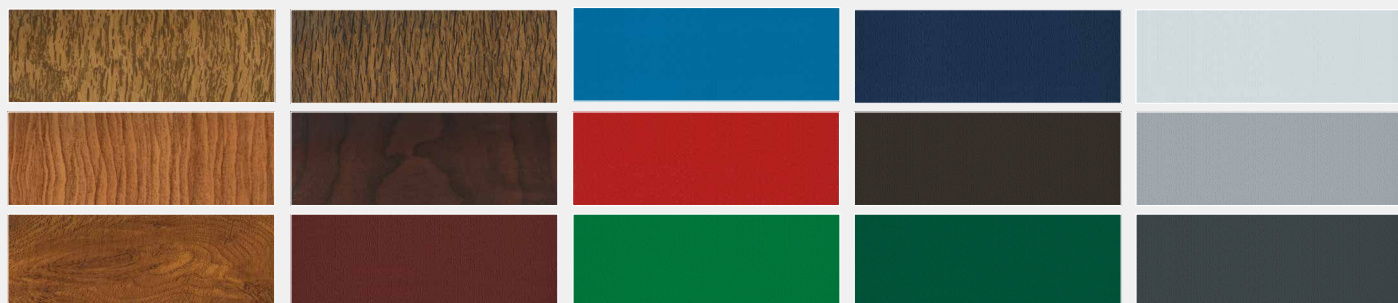
#### Standard sizes (mm)

2150x900, 3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
24	2.0	20	7.4	0.033	1.267

More than 200 different wood decors and universal films available from our warehouse



### COSMO® Therm - GFK

GFK on both sides, XPS core



#### Top coats

Glass-fibre reinforced plastics (GRP)

#### Core material

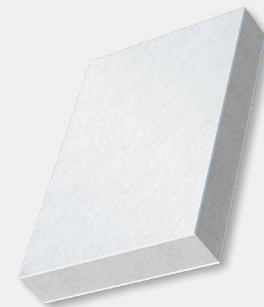
Polystyrene-rigid foam, extruded (XPS)

#### Special Properties

- Industrial quality
- High mechanical strength, impact- and shock-resistant
- Weather-resistant
- Short length extension
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm)

4000x2000



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	1.5	17	6.5	0.033	1.449
24	1.5	21	6.6	0.033	1.232
25	1.5	22	6.7	0.033	1.188
30	1.5	27	6.8	0.033	1.007

### COSMO® Therm - GFK

GFK on both sides, PUR core



#### Top coats

Glass-fibre reinforced plastics (GRP)

#### Core material

Polyurethane hard foam (PUR)

#### Special Properties

- Door panel quality
- Gelcoat surface, smooth
- Good mechanical strength due to high percentage of glass
- Weather-resistant
- Low thermal extension
- Especially suitable for the manufacture of front door panels
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm)

2000x900, 2150x1150, 3050x1150



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
24	2.0	20	8.8	0.026	1.057



COSMO® Therm - EPO/HD

EPO/HD on one side, PUR core, GRP on rear side

- Top coats

Epoxy resin with 200µ decorative film on surface
- Core material

Polyurethane hard foam (PUR)
- Special Properties

■ Coloured top coats which are highly light- and weather resistant
- Short length extension

■ High bending strength

■ Minimum bending also at high external temperatures

■ Moisture-resistant

■ CFC- and HCFC-free
- Standard sizes (mm)

2000x900, 2100x1000



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	1.0	18	3.5	0.026	1.146
24	1.0	22	3.7	0.026	0.975
28	1.0	26	3.9	0.026	0.847
30	1.0	28	4.0	0.026	0.796

COSMO® Therm - Quick-Tape

Adhesive film on both sides, XPS core

- Core material

Polystyrene-rigid foam, extruded (XPS)
- Raw density

35kg/m³
- Special Properties

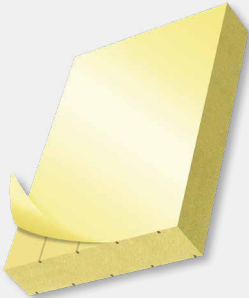
■ Fast bonding over the whole surface

■ Immediate adhesion, fast action, and easy handling
- No handling with adhesive or silicone cartridges

■ No dirty surfaces due to adhesive or silicone

■ Panels are ready for use immediately after pressing
- Standard sizes (mm)

3000x1000



Panel thickness (mm)	Pressure resistance (N/mm²)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
10	0.30	0.4	0.033	2.114
16	0.30	0.6	0.033	1.527
20	0.30	0.7	0.033	1.289
21	0.30	0.7	0.033	1.240
24	0.30	0.8	0.033	1.114
25	0.30	0.8	0.033	1.078
26	0.30	0.9	0.033	1.044
30	0.30	1.1	0.033	0.927
40	0.30	1.3	0.033	0.724
50	0.30	1.6	0.033	0.593
91	0.30	2.8	0.033	0.342
130	0.30	4.0	0.033	0.243

COSMO® Therm - Quick-Tape

Adhesive film on both sides, PUR core

- Core material

Polyurethane hard foam (PUR)
- Raw density

45-52kg/m³
- Special Properties

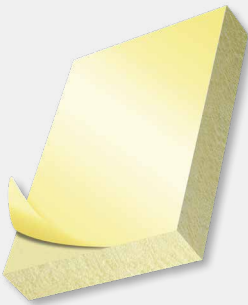
■ Fast bonding over the whole surface

■ Immediate adhesion, fast action, and easy handling
- No handling with adhesive or silicone cartridges

■ No dirty surfaces due to adhesive or silicone

■ Panels are ready for use immediately after pressing
- Standard sizes (mm)

2000x1000



Panel thickness (mm)	Pressure resistance (N/mm²)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
10	0.40	0.7	0.026	1.803
16	0.40	1.0	0.026	1.273
20	0.40	1.1	0.026	1.065
21	0.40	1.1	0.026	1.023
24	0.40	1.4	0.026	0.915
25	0.40	1.4	0.026	0.884
26	0.40	1.5	0.026	0.855
30	0.40	1.7	0.026	0.755
40	0.40	2.2	0.026	0.585
50	0.40	2.7	0.026	0.478
90	0.40	4.7	0.026	0.275
130	0.40	6.7	0.026	0.193



# COSMO® Therm

## Heat-insulating composite panels

### COSMO® Therm - SPE

Plywood on both sides, XPS core

#### Top coats

- Plywood
- Gabon B/BB, peeled veneer
  - Gabon A/BB, sliced veneer
  - Mahogany A/BB, sliced veneer
  - Pine A/BB, sliced veneer
  - Spruce A/BB, sliced veneer
  - Oak A/BB, sliced veneer
  - Larch A/BB, sliced veneer

#### Core material

Polystyrene-rigid foam, extruded (XPS)

#### tests

Reaction to fire test as per DIN EN 13501-1 /  
Class of fire E

#### Special Properties

- Surfaces untreated
- CFC- and HCFC-free

#### Standard sizes (mm)

2500x1700 (Other dimensions and designs on request)



### COSMO® Therm - SPE

#### Panel structure

4, 9, 12, 15 and 17 mm plywood smooth,  
as per DIN 68 705, A 100

#### Standard size (mm)

2500 x 1700mm

#### Top coats

- Plywood
- Gabon B/BB, peeled veneer
  - Gabon A/BB, sliced veneer
  - Mahogany A/BB, sliced veneer
  - Pine A/BB, sliced veneer
  - Spruce A/BB, sliced veneer
  - Oak A/BB, sliced veneer

#### Special Properties

- Surfaces untreated
- Moisture-resistant
- CFC- and HCFC-free



# COSMO® Silent

## Sound-insulating composite panels

Noise is a problem of our modern time. Our environment becomes increasingly noisier. Therefore, it is an important task, to reduce noise pollution effectively to a minimum. We took up this challenge and developed a series of composite panels that have special noise control characteristics in addition to outstanding heat insulation. These elements can be used, for instance, in window sills, doors, shutter housings, machines, or equipment housings or as sound-absorbing hoods. We are offering composite panels of several sound transmission classes (I to V), from which a huge number has been tested by the ift (Institut für Fenstertechnik) referring their noise insulation characteristics.

### COSMO® Silent (dB 38) - ALU

ALU on both sides, XPS core, heavy film insert



#### Top coats

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

#### Core material

Polystyrene rigid foam, extruded (XPS) with heavy film insert

#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- Moisture-resistant
- Low weight
- CFC- and HCFC-free
- Special heavy film for improving the noise insulation characteristics

#### Standard sizes (mm)

3000x1500



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
24	1.0	22 (9/4/9)	16.7	38	0.033	1.352

### COSMO® Silent (dB 46/50) - ALU

ALU on both sides, core of mineral wool, heavy-film insert



#### Top coats

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

#### Core material

Mineral fibre insulating material (MIN) with heavy film

#### Special Properties

- Water-repellent
- Heat- and sound-insulating
- Moisture-diffusing
- Special heavy film for improving the noise insulation characteristics

#### Standard sizes (mm)

Individually on request



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
31	1.5	27.5 (4/19.5/4)	29.4	46	0.035	1.30
42	2.0	38 (4/30/4)	32.6	50	0.035	0.93

# COSMO® Silent

## Sound-insulating composite panels

### COSMO® Silent (dB 34/36/38) - PVC

PVC on both sides, XPS core, heavy film insert



#### Top coats

PVC

#### Core material

Polystyrene rigid foam, extruded (XPS) with heavy film insert

#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Designs

PVC/dB34-XPS, PVC/dB36-XPS, PVC/dB38-XPS

#### Special Properties

- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- Moisture-resistant
- CFC- and HCFC-free
- Low weight
- Special heavy film for improving the noise insulation characteristics
- Paintable - using the paint system recommended by us
- Cold weldable using COSMO®FEN PLUS



#### Standard sizes (mm)

2000x1000, 3000x1500

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
23	1.5	20 (8/4/8)	15.6	36	0.033	1.444
24	2.0	20 (16/4)	16.7	38	0.033	1.432
24	2.0	20 (18/2)	11.8	34	0.033	1.335
34	2.0	30 (26/4)	17.1	38	0.033	0.999
34	2.0	30 (28/2)	12.1	34	0.033	0.951

### COSMO® Silent (dB 45/47) - HPL

HPL on both sides, core of mineral wool



#### Top coats

High-pressure laminated panels (HPL)

#### Core material

Mineral fibre insulating material (MIN) with heavy film inserts

#### Designs

- HPL-MIN/dB45 - ift 164 11442/1
- HPL-MIN/dB47 - ift 164 11442/2

#### Special Properties

- Impact- and shock-resistant as per DIN EN 438/2
- UV- and weather-resistant
- Mechanical resistance: Resistant to abrasion, shock and scratching
- Chemical resistance to: Organic solvents, weak acids and leaches, fuel, oil, resistant to bacteria and fungus attack
- Heat- and sound-insulating
- Moisture-diffusing
- Special heavy film for improving the noise insulation characteristics
- All around with edge strip and vapour-tight film as moisture barrier



#### Standard sizes (mm)

Individually on request

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
27	2.0	4/15/4	26.7	45	0.035	1.52
32	2.0	4/20/4	26.9	47	0.035	1.25

### COSMO® Silent (dB 38) - HPL/HD

HPL/HD on both sides, XPS core, heavy film insert



#### Top coats

High-pressure laminated panels (HPL) with 200μ decorative film surface

#### Core material

Polystyrene rigid foam, extruded (XPS) with heavy film insert

#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- UV- and weather-resistant
- Moisture-resistant
- CFC- and HCFC-free
- Special heavy film for improving the noise insulation characteristics

#### Standard sizes (mm)

2150x900, 2150x1150, 3050x1150, 3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	2.0	16	16.8	38	0.033	1.453
28	2.0	20	17.0	38	0.033	1.235

### COSMO® Silent (dB 38) - Quick-Tape

Adhesive film on both sides, XPS core, heavy film insert



#### Core material

Polystyrene rigid foam, extruded (XPS) with heavy film insert

#### Raw density

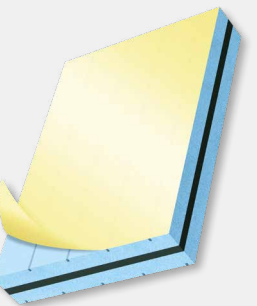
32 kg/m<sup>3</sup>

#### Special Properties

- Due to the application of a special heavy film, this element in connection with the aluminium top coat on both sides has a very good sound insulating factor (dB 38)
- Fast bonding over the whole surface
- Immediate adhesion, fast action, and easy handling
- No handling with adhesive or silicone cartridges
- No dirty surfaces due to adhesive or silicone
- Panels are ready for use immediately after pressing

#### Standard sizes (mm)

3000x1500, 3000x1000



Panel thickness (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	22	16.7	38	0.033	1.360



COSMO® PROTECT

# COSMO® Protect

## Burglar/penetration-resistive composite panels

Referring to their object-protecting characteristics penetration-resistive composite panels are to be classified in a higher level than glazing with resistance to thrown objects (manual attack). DIN EN 356 specifies the requirements and test methods for penetration-resistive glazing, which is intended to retard external forceful impacts on objects and/or persons within a protected area during a short period of time. If applied, penetration-resistive composite panels should be integrated in frames or structures that themselves provide a reasonable resistance to attacks. Generally, they are divided in classes P6B, P7B and P8B. There are test certificates available issued by ift (Institut für Fenstertechnik) for all three classifications.

### COSMO® Protect (P6B/P8B) - ALU

ALU on both sides, XPS core, ALU insert



**Top coats**

Aluminium coated as per RAL, NCS or DB colour system, other special colours on request, also deliverable with anodized surface

**Core material**

Polystyrene rigid foam, extruded (XPS) with steel or ALU-insert

**Test**

Category of resistance / DIN EN 356 P8B / ift test report 213 33643

Burglary resistance measured by axe test	Panel thickness (mm)	ALU insert (mm)	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m²K)
P8B	24	3.0	30	0.033	1.398
P6B	24	2.0	30	0.033	1.341

**Special Properties**

- Burglar-resistant characteristics
- CFC- and HCFC-free
- With aluminium insert or steel insert

**Standard sizes (mm)**

2000x1000, 2500x1250, 3000x1500

### COSMO® Protect (P7B) - PVC

PVC on both sides, XPS core, ALU insert



**Top coats**

PVC

**Core material**

Polystyrene rigid foam, extruded (XPS) with ALU insert

**Test**

Category of resistance DIN EN 356 P7B / ift test report 213 33641

Burglary resistance measured by axe test	Panel thickness (mm)	ALU insert (mm)	Lambda value (W/mK)	U-value (W/m²K)
P7B	24	3.0	0.033	1.364

**Special Properties**

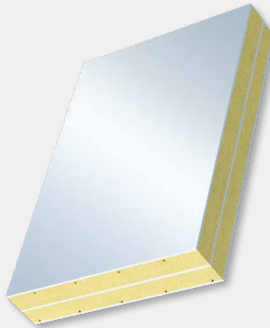
- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant
- UV-resistant in accordance with DIN EN ISO 4892 and meets the requirements of RAL-GZ 716/1
- Moisture-resistant
- CFC- and HCFC-free
- Burglar-resistant characteristics

**Standard sizes (mm)**

2000x1000, 2500x1250, 3000x1500

### COSMO® Protect - PVC

PVC on both sides, XPS core, PVC insert



**Top coats**

PVC compact panel white, the external top coats are equipped with protective film

- Weather-resistant
- UV-resistant

**Core material**

Polystyrene-rigid foam, extruded (XPS)

- Thermal conductivity group 035
- Raw density 33 kg/m³
- Pressure resistance 0.30 N/mm² as per DIN 53421
- Moisture-resistant
- Free from CFC and HCFC

**Test**

- Successfully tested for shock resistance as per following standards/test standards: NF P 08-301, P 08-302 (France) Test report No.: 403 / 19 / 13242
- LNE TESTED (P191046) as per „EN 13501-1+A1 : 2013“ tested: Classification E.
- Certified by Avis Technique - No. 6/16-2330\_V2 Class of fire E

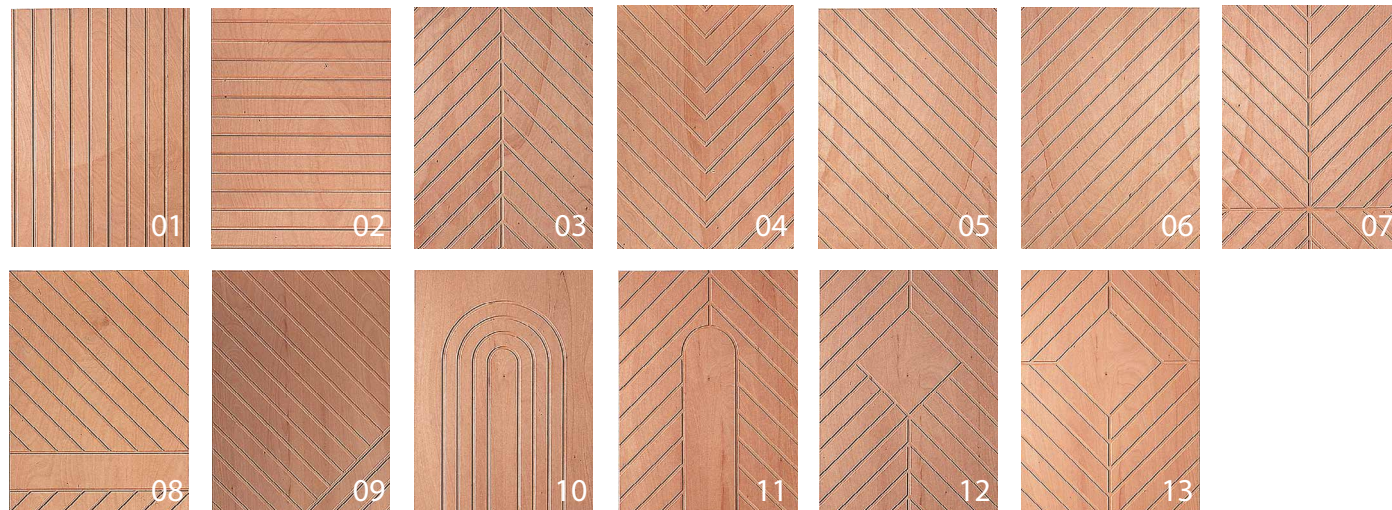
Panel thickness (mm)	PVC insert (mm)	Lambda value (W/mK)	U-value (W/m²K)	Specific weight (kg/m²)
24	1.30	0.033	1.246	5.7
28	1.30	0.033	1.083	5.9

# COSMO® Design

## Grooved composite panels

We are offering composite panels with milled top coats made of plywood, aluminium, PVC compact panels or HPL-high-pressure laminated panels with different milling patterns in accordance with the design overview. A very special performance is provided by our COSMO® Art Design elements with surface patterns like concrete, rust or slate.

### Design overview for milled top coats (applies to all surfaces)



Groove dimensions on request

### COSMO® Design - SPE

#### Plywood on both sides, XPS

#### Top coats

- Plywood
- Gabon B/BB, peeled veneer
- Gabon A/BB, sliced veneer
- Mahogany A/BB, sliced veneer
- Pine A/BB, sliced veneer
- Spruce A/BB, sliced veneer
- Oak A/BB, sliced veneer
- Larch A/BB, sliced veneer

#### Special Properties

- Surfaces untreated
- Surfaces sliced or peeled veneer
- CFC- and HCFC-free

#### Standard sizes (mm)

2500x1700 (Other dimensions and designs on request)

**Groove type: Softline groove**   
Groove centre distance: 100mm; groove width: 8mm; groove depth: 4.5 mm

#### Core material

XPS

#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
29.5	9.5	16	8.1	0.033	1.353

### COSMO® Design - SPE

#### Panel structure

- 9 mm plywood, at least 5-fold bonded as per DIN 68 705, A 100
- Milled groove design in accordance with design overview

#### Standard size (mm)

2500 x 1700 x 9.5mm

**Groove type: Softline groove**   
Groove centre distance: 100mm; groove width: 8mm; groove depth: 4.5 mm



### COSMO® Design - ALU

#### ALU on both sides, XPS core



#### Top coats

Aluminium, milling patterns in accordance with the design overview, coated as per RAL, NCS or DB colour system, other special colours on request

#### Core material

Polystyrene-rigid foam, extruded (XPS)

#### Test


Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- Milled groove design in accordance with the design overview
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm)

2000x1000

**Groove type: Wide groove**   
Groove centre distance: 100mm; groove width: 12mm; groove depth: 1.2 mm

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	2.0	20	9.8	30	0.033	1.289

### COSMO® Design - PVC

HPL on one side, XPS core, PVC on rear side, smooth



#### Top coats

PVC, milled groove, corresponding to our design overview

#### Core material

Polystyrene-rigid foam, extruded (XPS)


#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- Milled groove design in accordance with the design overview
- Surface white painted
- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm): 2000x1000, 3000x1500

**Groove type: Wide groove**   
Groove centre distance: 100mm; groove width: 12mm; groove depth: 1.2 mm

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	2.5/1.5	20	7	30	0.033	1.251

### COSMO® Design - HPL

HPL-groove on both sides, XPS core



#### Top coats

High-pressure laminated panels (HPL)

#### Core material

Polystyrene-rigid foam, extruded (XPS)


#### Test

Reaction to fire test as per DIN EN 13501-1 / Class of fire E

#### Special Properties

- Milled groove in accordance with design overview
- Surface painted as per RAL (special paints on request)
- Weather-resistant
- Moisture-resistant
- CFC- and HCFC-free

#### Standard sizes (mm): 2150x900

**Groove type: Wide groove**   
Groove centre distance: 100mm; groove width: 12mm; groove depth: 12 mm

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
24	3.0/2.0	19	8.1	29	0.033	1.312



# COSMO® Tech

## Individual composite panels

### COSMO® Tech - PVC

PVC on both sides, PR core



#### Top coats

PVC

#### Core material

PUR recycling panel (PR)

#### Special Properties

- Increased impact resistance as per DIN EN ISO 179 (DIN 53 453)
- Weather-resistant, moisture-resistant
- UV-resistant
- Suitable for sawing, milling, grinding, slot cutting, drilling and screwing

#### Standard sizes (mm)

2000x1000, 3000x1500



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
20	2.0	16	14.2	0.076	2.477
24	2.0	20	16.2	0.076	2.191
30	2.0	26	19.2	0.076	1.869
34	2.0	30	21.2	0.076	1.701

### COSMO® Tech - PVC

PVC on both sides, XPS core, TK inserts



#### Top coats

PVC

#### Core material

Polystyrene rigid foam, extruded (XPS) with inserts made of thermoplastic plastics material (TK)

#### Special Properties

- Minimum absorption of humidity
- Low weight
- Screwable with industrial screws for timber construction
- Durably moisture-resistant
- Environmentally-friendly inserts (TK is 100% recyclable)

#### Standard sizes (mm)

on request



Variant	Panel thickness (mm)	Top coats (mm)	Core material (mm)
XPS/035/TK150	23	1.5	20
XPS/035/TK150	29	1.5	26
XPS/035/TK200	23	1.5	20
XPS/035/TK200	29	1.5	26

### COSMO® Tech - HPL

HPL on both sides, PR core



#### Top coats

High-pressure laminated panels (HPL)

#### Core material

PUR recycling panel (PR)

#### Special Properties

- Impact- and shock-resistant as per DIN EN 438/2
- UV- and weather-resistant
- Mechanical resistance: Resistant to abrasion, shock and scratching
- Chemical resistance to: Organic solvents, weak acids and leaches, fuel, oil, resistant to bacteria and fungus attack
- Moisture-resistant
- Low weight
- Suitable for sawing, milling, grinding, slot cutting, drilling and screwing

#### Standard sizes (mm)

2800x1860, 2800x2070



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
24	2.0	20	16.2	0.076	2.241
28	2.0	24	18.2	0.076	2.005
30	2.0	26	19.2	0.076	1.905
34	2.0	30	21.0	0.076	1.731

### COSMO® Tech - HPL

HPL on both sides, PUR core, PR insert



#### Top coats

High-pressure laminated panels (HPL)

#### Core material

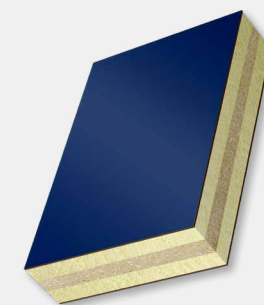
Polyurethane hard foam (PUR)  
PUR recycling panel (PR)

#### Special Properties

- Impact- and shock-resistant as per DIN EN 438/2
- UV- and weather-resistant
- Mechanical resistance: Resistant to abrasion, shock and scratching
- Chemical resistance to: Organic solvents, weak acids and leaches, fuel, oil, resistant to bacteria and fungus attack
- Moisture-resistant
- Low weight
- Suitable for sawing, milling, grinding, slot cutting, drilling and screwing
- CFC- and HCFC-free (PUR)

#### Standard sizes (mm)

3050x1300



Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
25	1.5	22 (6.5/9.0/6.5)	11.4	0.026	1.30
27	1.5	24 (7.5/9.0/7.5)	11.5	0.026	1.20
31	1.5	28 (9.5/9.0/9.5)	11.7	0.026	1.03

COSMO® Tech - HPL

HPL on both sides, TK core

**Top coats**  
High-pressure laminated panels (HPL)

**Core material**  
Thermoplastic plastics material (TK/150)

- Special Properties**
- Minimum absorption of humidity due to closed cell
  - Outstanding mechanical characteristics
  - Low weight
  - Screwable with industrial screws for timber construction
  - Screwing together without pre-drilling (core)
  - Durably moisture-resistant
  - Swelling-resistant, i.e. no changes of dimensions
  - High pressure resistance
  - Environmentally-friendly inserts (TK is 100% recyclable)

**Standard sizes (mm)**  
2800x1860, 2800x2070

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
28	2.0	24	9.8	0.041	1.301
30	2.0	26	10.1	0.041	1.223

COSMO® Tech - GFK

GRP on one side anti-slip, TK core, GRP on rear side, smooth

**Top coats**  
Glass-fibre reinforced plastics (GRP)

**Core material**  
Thermoplastic plastics material (TK)

**Field of application**  
Floor elements

- Special Properties**
- Minimum absorption of humidity
  - Outstanding mechanical characteristics
  - Low weight
  - Screwable with industrial screws for timber construction
  - Durably moisture-resistant
  - Swelling-resistant, i.e. no changes of dimensions
  - High pressure resistance
  - Environmentally-friendly inserts (TK is 100% recyclable)
  - Slipping class R12 (fine) R13 (medium)

**Standard sizes (mm)**  
on request

Variant	Panel thickness (mm)	Top coats (mm)	Core material (mm)	Lambda value (W/mK)	U-value (W/m²K)
XPS-P/TK150	23	1.5	20	0.041	1.509
XPS-P/TK150	29	1.5	26	0.041	1.236
XPS-P/TK200	23	1.5	20	0.043	1.562
XPS-P/TK200	29	1.5	26	0.043	1.283

COSMO® Tech - GFK

GFK on both sides, TK core

**Top coats**  
Glass-fibre reinforced plastics (GRP)

**Core material**  
Thermoplastic plastics material (TK)

**Field of application**  
Automotive manufacturing

- Special Properties**
- Minimum absorption of humidity
  - Outstanding mechanical characteristics
  - Low weight
  - Screwable with industrial screws for timber construction
  - Durably moisture-resistant
  - Swelling-resistant, i.e. no changes of dimensions
  - High pressure resistance
  - Environment-friendly core material (100% recyclable)

**Standard sizes (mm)**  
on request

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m²)	Lambda value (W/mK)	U-value (W/m²K)
23	1.5	20 / TK150	7.9	0.041	1.51
29	1.5	26 / TK150	8.8	0.041	1.24
23	1.5	20 / TK200	8.9	0.043	1.56
29	1.5	26 / TK200	10.1	0.043	1.28



# COSMO® Frame

## Frame widening elements



### COSMO® Frame - PVC

PVC on both sides, XPS/TK core



#### Top coats

PVC compact panels, white with protective film

#### Core material

Polystyrene rigid foam, extruded (XPS);  
thermoplastic plastics (PR)

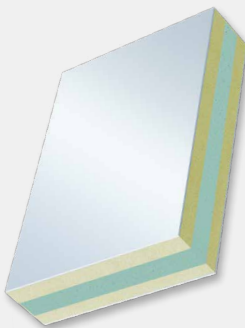
#### Field of application

- Widening of frames
- substructure of lifting/sliding doors

#### Test

Airborne sound insulation as per EN ISO 717-1  
Rw 36 (-1;-1) dB

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
70	2	12/26/28	13.3		0.033/0.043	0.497
74	2	18/26/26	13.4		0.033/0.043	0.469
84	2	20/26/34	13.7	33	0.033/0.043	0.411
90	2	12/26/48	13.9		0.033/0.043	0.378



### COSMO® Frame (dB) - PVC

PVC on both sides, XPS/PR core, heavy film insert



#### Top coats

PVC compact panels, white with protective film

#### Core material

Polystyrene rigid foam, extruded (XPS);  
PUR-recycling panel (PR)

#### Field of application

- Widening of frames
- substructure of lifting/sliding doors

#### Test

Airborne sound insulation as per EN ISO 717-1 Rw  
40 (-1;-1) dB, ift 164 32607/Z10

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Lambda value (W/mK)	Sound insulation factor (dB)	U-value (W/m <sup>2</sup> K)
70	2	24/4,0/26/12	32.2	0.033/0.076	40	0.606
74	2	22/4,0/26/18	32.3	0.033/0.076		0.546



### COSMO® Frame - PVC

PVC on both sides, XPS/PR core



#### Top coats

PVC compact panels

#### Core material

Polystyrene rigid foam, extruded (XPS);  
PUR-recycling panel (PR)

#### Field of application

- Widening of frames
- substructure of lifting/sliding doors

#### Test

Airborne sound insulation as per EN ISO 717-1 Rw 36  
(-1;-1) dB, ift 164 32607/Z11

Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Sound insulation factor (dB)	Lambda value (W/mK)	U-value (W/m <sup>2</sup> K)
70	2	28/26/12	22.2	36	0.033/0.076	0.572
74	2	26/26/18	22.5		0.033/0.076	0.535
84	2	20/26/34	22.8		0.033/0.076	0.461
86	2	8/26/48	22.9		0.033/0.076	0.448
88	2	12/26/46	23.0		0.033/0.076	0.436
90	2	12/26/48	23.1		0.033/0.076	0.425



### COSMO® Frame (dB) - PVC

PVC on both sides, XPS/TK core, heavy film insert



#### Top coats

PVC compact panels, white with protective film

#### Core material

Polystyrene-rigid foam, extruded (XPS);  
Thermoplastic plastics material (TK)

#### Field of application

- Widening of frames
- substructure of lifting/sliding doors

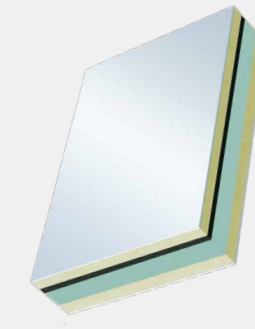
#### Special Properties

- Noise insulating
- Moisture-resistant
- Weather-resistant
- UV-resistant
- CFC- and HCFC-free
- Suitable for sawing, milling, grinding, slot cutting, screwing and drilling
- Swelling-resistant and no changes of dimensions

#### Standard sizes (mm)

3000x1500, 4000x1500

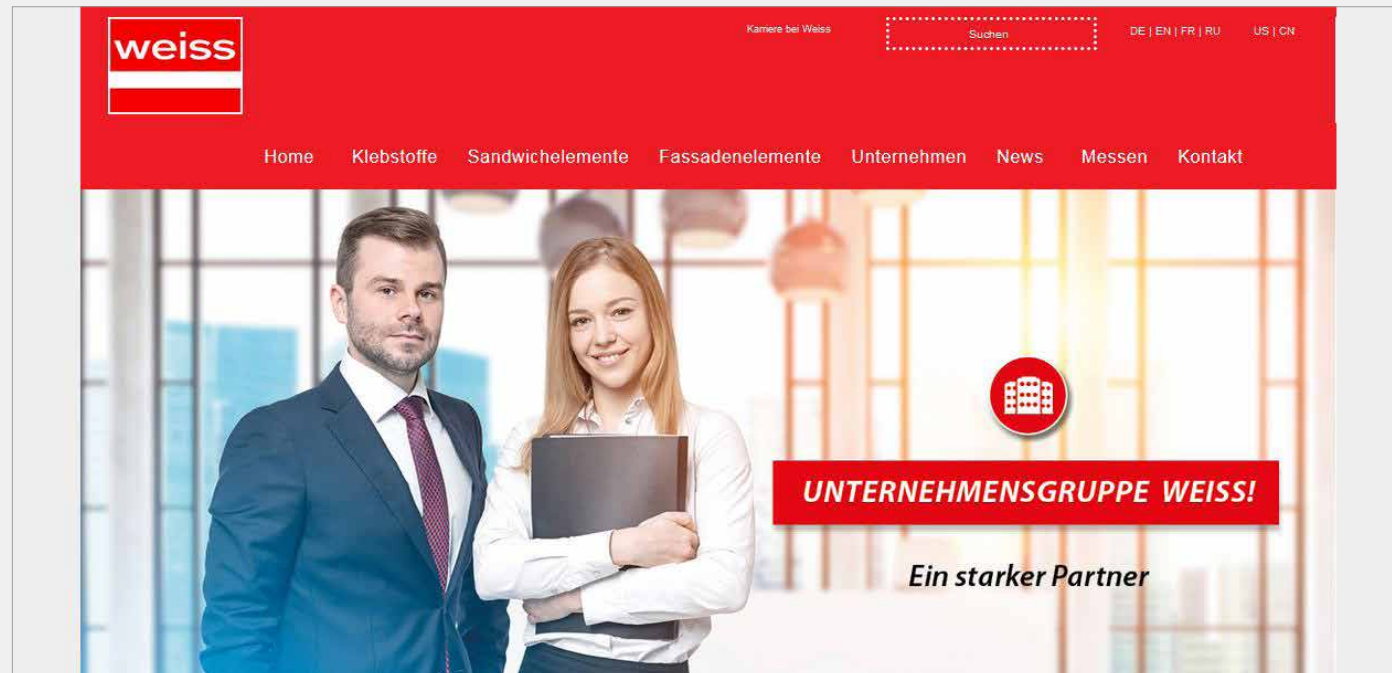
Panel thickness (mm)	Top coats (mm)	Core material (mm)	Weight (kg/m <sup>2</sup> )	Lambda value (W/mK)	Sound insulation factor (dB)	U-value (W/m <sup>2</sup> K)
70	2	24/4,0/26/12	21.7	0.033/0.043		0.523
74	2	22/4,0/26/18	21.8	0.033/0.043		0.492
84	2	20/4,0/26/30	23.5	0.033/0.043	37	0.428



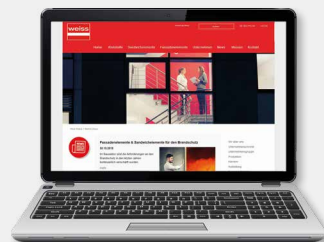


### Always up to date

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#### Fields of Application



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Cleanliness refreshes your senses



### Customer support

Flexibility and the creation of customer-oriented problem solutions count among the elementary objectives of our company. Therefore, it is very important to us to provide professional and innovative solutions with convincing advantages for production methods and with high efficiency in close cooperation with our customers.

A highly motivated team of application engineers, materials testers and chemists with long-term experience in development, modification, materials science, building physics and application of adhesives and composite panels is on hand with help and advice for you.



#### Application engineering Adhesives



- 01 + Support with creating the requirements specification
- 02 + Expert advice on the selection of adhesives
- 03 + Optimisation tips for the design of the bonding surfaces
- 04 + Rationalisation proposals for work flows
- 05 + Recommendation of suitable dosing units as well as application and pressing technology
- 06 + Optimisation of workplaces when using adhesives
- 07 + Training for workers and specialist dealers; technical lectures
- 08 + Creation and modification of adhesives in our Research and Development department



#### Application engineering Composite panels



- 01 + Individual Panel structure
- 02 + Application-specific material components
- 03 + Project-related proposals for solutions
- 04 + Selection of materials in accordance with construction-physical requirements and conditions



#### Test possibilities in our Technical Centre

- + **Materials tests:**
  - Storage at alternating climate
  - 3-point bending rigidity
  - Perpendicular tensile strength
  - Colour measurement
  - Storage in water
  - Determination of U-values
- ! Furthermore, we are working together with famous testing institutes that are responsible for fire protection and sound insulation.

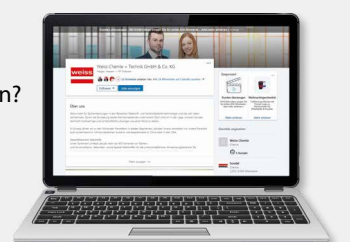


#### Test possibilities in our application technology and internal research and development department

- + With our own test facilities we are not only able to test in compliance with DIN and EN standards but we can also evaluate your components (component sizes) under operating conditions in a practice-oriented way. In addition, we ensure the high quality of our products on the basis of our cooperation with the most diverse testing institutes.



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**Weiss Chemie + Technik GmbH & Co. KG.**





# An overview of our range of products

Experience quality on a completely new level, with the powerful products by Weiss:



## **COSMO® Adhesives**

*Durably firm joints*

**COSMO® CA** (Cyanoacrylates)  
**COSMO® PU** (Polyurethane adhesives)  
**COSMO® CL** (Cleaning agents)  
**COSMO® SL** (Dispersion adhesives)  
**COSMO® HD** (Hybrid adhesives)  
**COSMO® EP** (Epoxy-resin adhesives)  
**COSMO® DS** (Dispersion adhesives)  
**COSMO® SP** (Service products)

### **Fields of application**

- + Windows and doors
- + Transportation / Marine engineering
- + Industry
- + Assembly
- + Dry construction
- + Airtight bonding
- + Wood / Furniture industry
- + Container construction
- + Composite panels
- + Fire protection
- + Advertising industry



## **COSMO® Composite Panels**

*Unlimited possibilities for design*

**COSMO® Therm** (Thermal insulation)  
**COSMO® Silent** (Sound insulation)  
**COSMO® Protect**  
(Burglar/penetration resistant)  
**COSMO® Design** (Grooved elements)  
**COSMO® Tech** (Individual elements)  
**COSMO® Frame** (frame widening)

### **Fields of application**

- + Window and façade
- + Door construction
- + Industry
- + Automotive manufacturing
- + Trailer construction
- + Partition panel construction
- + Gate construction
- + Container construction
- + Energy conservation
- + Fire protection
- + Burglar resistance
- + Sound proofing



## **PUDOL Cleaning and maintenance products**

*Cleanliness refreshes your senses*

**PUDOL SOFT**  
Mild cleaning agent for sensitive materials  
**PUDOL CARE**  
Maintenance product for high gloss and hygiene  
**PUDOL POWER**  
Powerful cleaning agent for extreme pollution  
**PUDOL FRESH**  
Cleaning agent for cleanliness and fresh air

### **Fields of application**

- + FLOORING
- + Sanitary area
- + Clothing care
- + Food industry
- + Household and gastronomy
- + Windows and glass
- + Dishwasher
- + Carpet and upholstery
- + Industry and workshop
- + Cars
- + Skin cleaning
- + Skin protection



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