



## POLYURETHANE CORE WALL SANDWICH PANELS WITH EXPOSED FASTENING



### PU-W-ST

#### FEATURES

- high thermal insulating power - rigid polyurethane foam core and a seal inserted during production
- **FIRESTOP** – high fire tightness - unique, both-sided shape of the panel-and-lock joint
- easy assembly - profiling of the lock and conical sloping of the internal joint surface matches panels with other core materials
- compatible system - panels matching the BALEXTHERM-W-ST panels with various core materials
- high durability of anti-corrosion coatings - appropriate technology for profiling the shape of metal facing
- aesthetic façade appearance

#### APPLICATION

- lightweight casing for walls
- exterior and partition walls
- interior flooring covering
- structure insulation
- industrial and commercial facilities
- agricultural facilities
- logistic facilities
- fruit and vegetable stores
- sport halls



#### TECHNICAL PARAMETERS

Name	Polyurethane core wall sandwich panels with exposed fastening - BALEXTHERM-PU-W-ST				
Core	PUR or PIR rigid polyurethane foam core / density: 40(+/-3) kg/m³				
Facing thickness [mm]	0.40 – 0.70				
Material	S250GD - S280GD, stainless steel (1.4301)				
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafes“, PVDF, galvanized, alu-zinc + easyfilm®, <b>CESAR PUR 55*</b> - a polyurethane coating with polyamide balls, superior life & durability				
Colouring	wide range of Balex Metal World of Colours – page 46				
Effective width [mm]	1100				
Total width [mm]	1120				
Panel length [mm]	2500 – 18 000				
Core thickness [mm]	40	50	60	80	100
Weight [kg/m²]	10,26	10,58	11,08	11,79	12,60
Thermal transmittance U <sub>c</sub> [W/m²K]	0,55	0,44	0,37	0,28	0,22
Fire resistance	Not spreading fire NRO		E 60, Not spreading fire NRO		E 60, NRO* (PUR) E 45, EI 20, NRO (PIR)
Reaction to fire	B-s3, d0 (PUR) B-s2, d0 (PIR)				

\* Not spreading fire NRO

NEW!

## TYPES OF FACING PROFILES

**L** Lined



**M** Microprofiled



**G** Flat



## AVAILABLE TYPES OF FACING PROFILES

External facing

**L**

**M**

**G\***

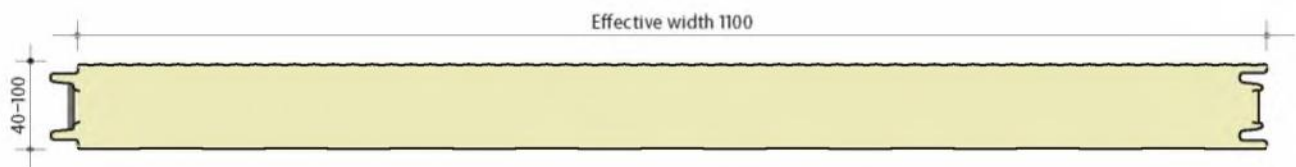
Internal facing

**L**

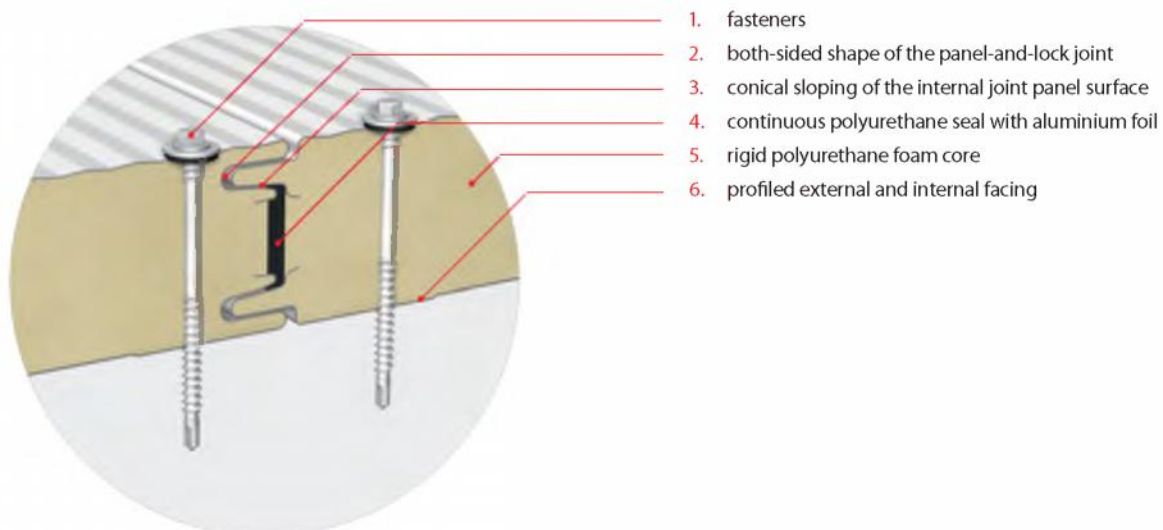
**G\***

\* available with facing of minimal thickness 0.50mm

## SECTIONAL VIEW OF THE BALEXTERM-PU-W-ST PANEL



## DETAILS OF THE BALEXTERM-PU-W-ST PANELS JOINT





## POLYURETHANE CORE WALL SANDWICH PANELS WITH CONCEALED FASTENING



### PU-W-PLUS

#### FEATURES

- high thermal insulating power - rigid polyurethane foam core and a seal inserted during production
- aesthetic façade appearance - concealed structural joint, wide range of profiles of external facing
- **FIRESTOP** - high fire tightness - unique, both-sided shape of the panel-and-lock joint
- easy assembly - profiling of the lock, longwise groove and conical sloping of the internal joint surface matches panels with other core materials
- compatible system - panels matching the BALEXTHERM-W-PLUS panels with various core materials
- high durability of anti-corrosion coatings - appropriate technology for profiling the shape of metal facing

#### APPLICATION

- lightweight casing for walls
- exterior and partition walls
- interior flooring covering
- structure insulation
- industrial and commercial facilities
- agricultural facilities
- logistic facilities
- fruit and vegetable stores
- sport halls



#### TECHNICAL PARAMETERS

Name	Polyurethane core wall sandwich panels with concealed fastening - BALEXTHERM-PU-W-PLUS					
Core	PUR or PIR rigid polyurethane foam core / density: 40(+/-3) kg/m³					
Facing thickness [mm]	0.40 – 0.70					
Material	S250GD - S280GD; stainless steel (1.4301) (external facing)					
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafte“, PVDF, galvanized, alu-zinc + easyfilm®, <b>CESAR PUR 55*</b> - a polyurethane coating with polyamide balls, superior life & durability					
Colouring	wide range of Balex Metal World of Colours – page 46					
Panel length [mm]	2500 – 18 000					
Effective width [mm]	1000			1050		
Total width [mm]	1050			1100		
Core thickness [mm])	60	80	100	60	80	100
Weight [kg/m²]	11,41	12,11	12,87	11,38	12,11	12,91
Thermal transmittance U <sub>c</sub> [W/m²K]	0,38	0,28	0,23	0,38	0,28	0,23
Fire resistance	E 30, NRO*	EI 15 / E 30, Not spreading fire NRO		E 30, NRO*	EI 15 / E 30, Not spreading fire NRO	
Reaction to fire	B-s3, d0 (PUR) B-s2, d0 (PIR)					

\* Not spreading fire NRO

NEW!



## TYPES OF FACING PROFILES

**L** Lined



**S** Softline



**M** Microprofiled



**R** Grooving



**G\*** Flat

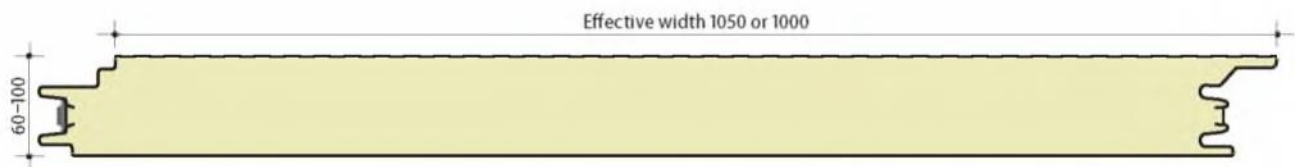


## AVAILABLE TYPES OF FACING PROFILES

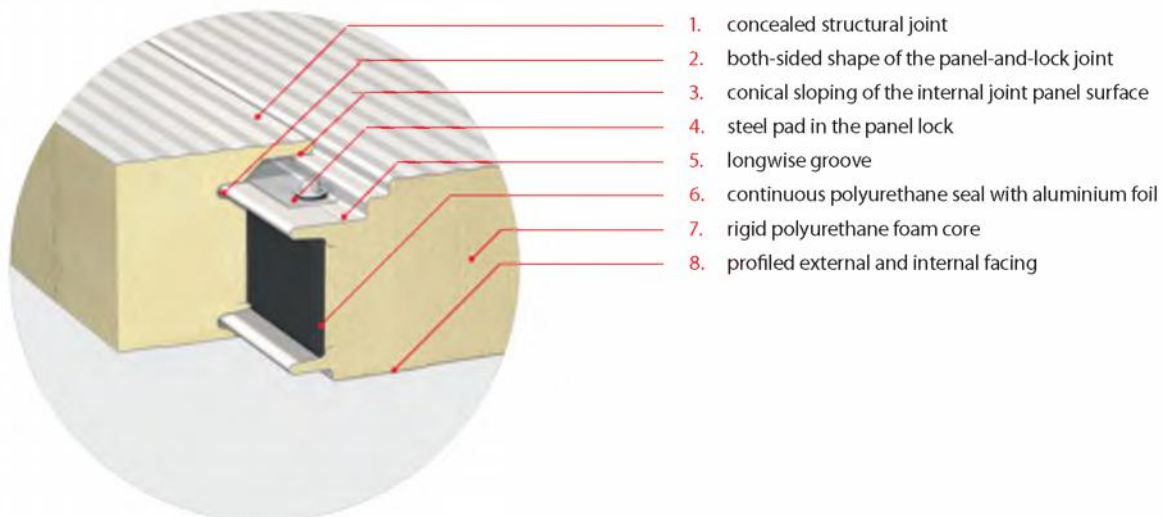
	Module 1050				Module 1000			
External facing	<b>S</b>	<b>M</b>	<b>R</b>	<b>G*</b>	<b>L</b>	<b>S</b>	<b>M</b>	<b>G*</b>
Internal facing	<b>L</b>			<b>G*</b>	<b>L</b>			<b>G*</b>

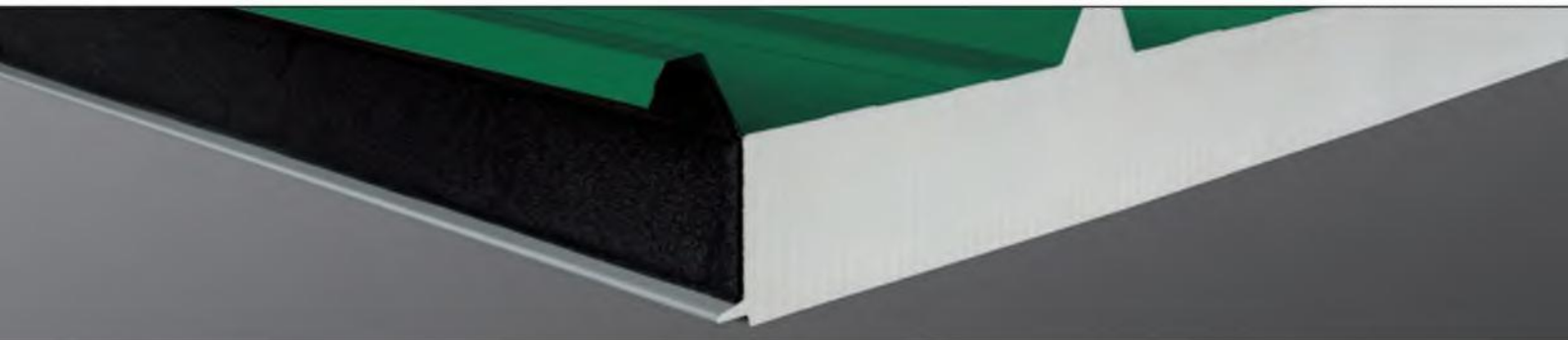
\* available with facing of minimal thickness 0.50mm

## SECTIONAL VIEW OF THE BALEXTHERM-PU-W-PLUS PANEL



## DETAILS OF THE BALEXTHERM-PU-W-PLUS PANELS JOINT





## POLYURETHANE CORE ROOF SANDWICH PANELS



### PU-R

#### FEATURES

- high thermal insulating power - rigid polyurethane foam core and a seal inserted during production
- **FIRESTOP** - high fire tightness - new both-sided shape of the panel-and-lock joint
- easy assembly - profiling of the lock and conical sloping of the internal joint surface matches panels with other core materials
- compatible system - panels matching the BALEXTHERM-R panels with various core materials
- panels of differing core thicknesses can be joined together
- high durability of anti-corrosion coatings - appropriate technology for profiling the shape of metal facing
- high load-bearing capacity - trapezoidal profiling of the external facing
- good drainage of rainwater

#### APPLICATION

- light roof covering
- industrial and commercial facilities
- agricultural facilities
- logistic facilities
- fruit and vegetable stores
- sport halls



#### TECHNICAL PARAMETERS

Name	Polyurethane core roof sandwich panels - BALEXTHERM-PU-R					
Core	PUR or PIR rigid polyurethane foam core / density: 40(+/-3) kg/m³					
Facing thickness [mm]	0.40 – 0.70					
Material	S250GD – S 280GD; stainless steel (1.4301) (external facing)					
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafes“, PVDF, galvanized, alu-zinc + easyfilm®, <b>CESAR PUR 55*</b> - a polyurethane coating with polyamide balls, superior life & durability					
Colouring	wide range of Balex Metal World of Colours – page 46					
Panel length [mm]	2500 – 18000					
Effective width [mm]	1000					
Total width [mm]	1062,50					
Core thickness [mm])	40	60	80	100	120	160
Weight [kg/m²]	10,84	11,65	12,45	13,26	14,07	15,69
Thermal transmittance U <sub>c</sub> [W/m²K]	0,52	0,36	0,27	0,22	0,19	0,14
Fire resistance	Not spreading fire NRO		REI 30 / RE 60 (PIR), REI 20 / RE 60 (PUR) Not spreading fire NRO			
Resistance of the roof to an external fire	B <sub>roof</sub> (t <sub>i</sub> )					
Minimal roof slope:	> 7% - for panels joined longwise or with rooflights > 5% - for continuous panels and without rooflights					

NEW!

NEW!

## TYPES OF FACING PROFILES

**L** Lined



**G\*** Flat



**T** Trapezoidal



## AVAILABLE TYPES OF FACING PROFILES

External facing

**T**

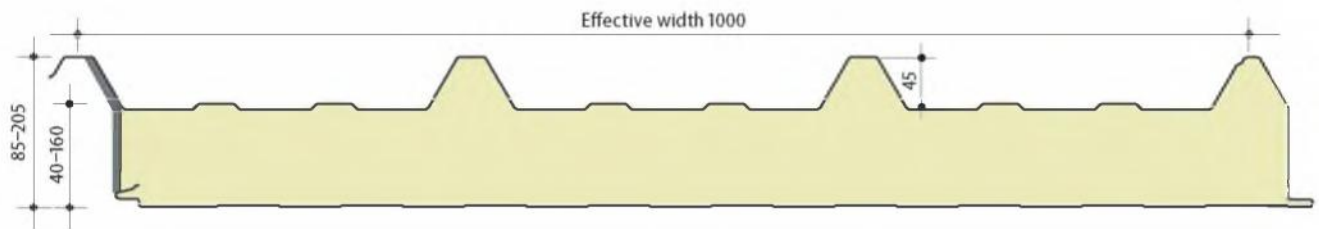
Internal facing

**L**

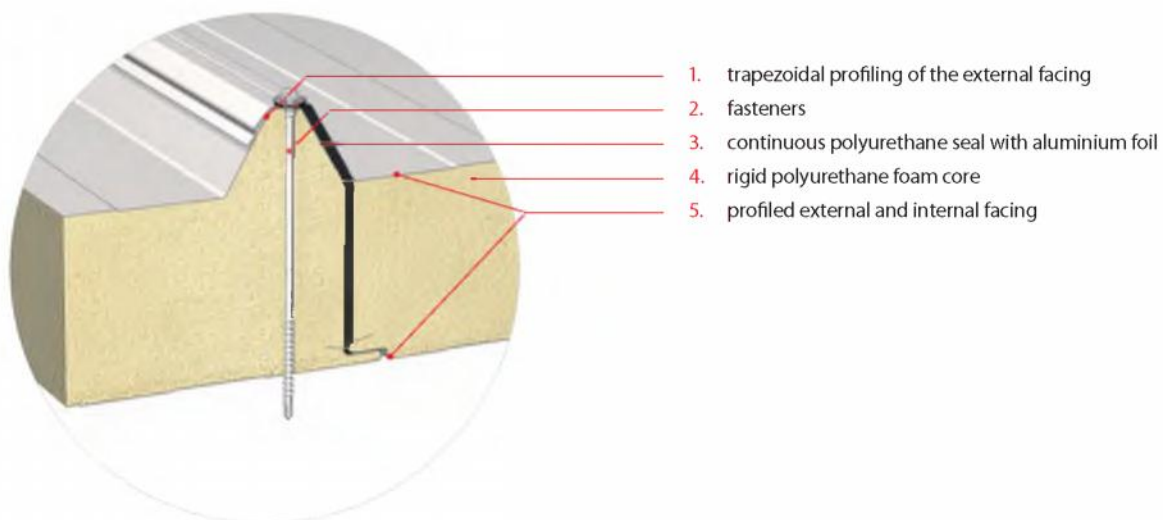
**G\***

\* available with facing of minimal thickness 0.50mm

## SECTIONAL VIEW OF THE BALEXTHERM-PU-R PANEL



## DETAILS OF THE BALEXTHERM-PU-R PANELS JOINT





## POLYURETHANE CORE COLD STORAGE SANDWICH PANELS



### ·PU-F

#### FEATURES

- **FIRESTOP** – high fire tightness - unique, both-sided shape of the panel-and- lock joint
- high thermal insulating power - rigid polyurethane foam core and special panel fastening system eliminating points of thermal bridges.
- perfect joint of panels - milled core joint to eliminate linear thermal bridge
- easy assembly - profiled lock and conical sloping of the internal joint surface
- high durability of anti-corrosion coatings - appropriate technology for profiling the shape of metal facing
- aesthetic façade appearance - wide range of profiles of external facing

#### APPLICATION

- exterior and partition walls of cold insulated facilities
- flooring coverings of cold insulated facilities
- cold chambers, freezer coldrooms
- fruit and vegetable stores
- rooms of high hygienic requirements



#### TECHNICAL PARAMETERS

Name	Polyurethane core cold storage sandwich panels - BALEXTHERM-PU-F			
Core	PUR or PIR rigid polyurethane foam core / density: 40(+/-3) kg/m <sup>3</sup>			
Facing thickness [mm]	0.40 – 0.70			
Material	S250GD – S280GD; stainless steel (1.4301)			
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafe“, PVDF, galvanized, alu-zinc + easyfilm®, <b>CESAR PUR55®</b> – a polyurethane coating with polyamide balls, superior life & durability			
Colouring	wide range of Balex Metal World of Colours – page 46			
Panel length [mm]	2 500 – 18 000			
Effective width [mm]	1100			
Total width [mm]	1120			
Core thickness [mm]	120	160	180	200
Weight [kg/m <sup>2</sup> ]	13,37	15,00	15,82	16,61
Thermal transmittance U <sub>c</sub> [W/m <sup>2</sup> K]	0,18	0,14	0,12	0,10
Fire resistance	E30 / EI 15, Not spreading fire NRO (PUR) E90 / EI 30, Not spreading fire NRO (PIR, d≤200mm) EI60, Not spreading fire NRO (PIR, d=200mm)			
Reaction to fire	B-s2, d0			

NEW!



## TYPES OF FACING PROFILES

**L** Lined



**M** Microprofiled



**G\*** Flat



## AVAILABLE TYPES OF FACING PROFILES

External facing

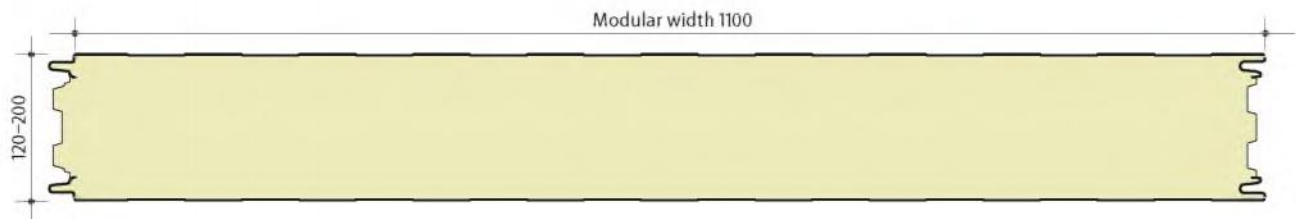
**L** **M** **G\***

Internal facing

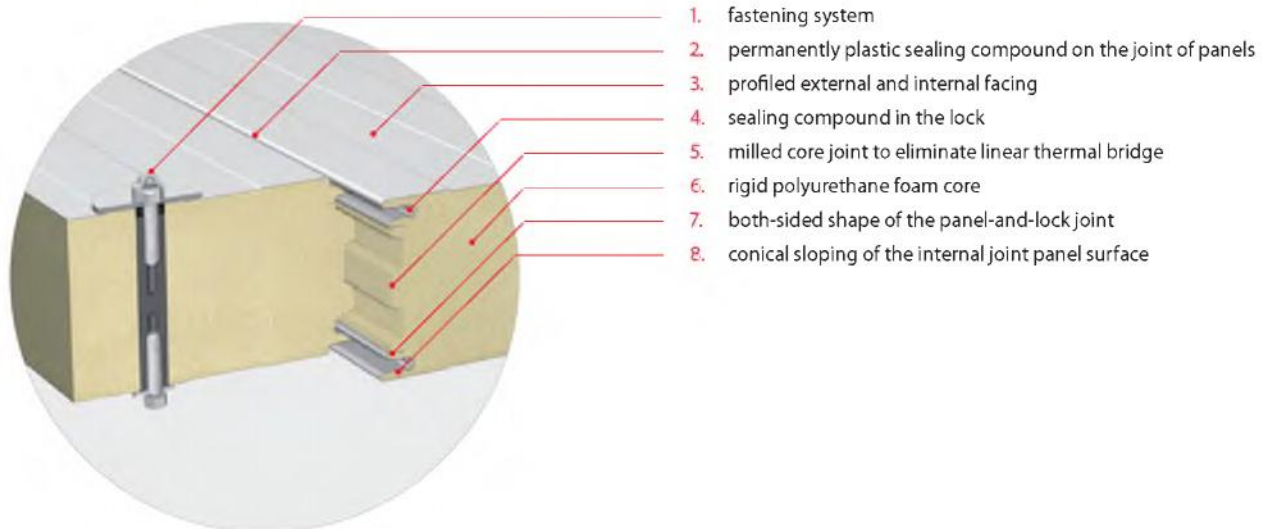
**L** **G\***

\* available with facing of minimal thickness 0.50mm

## SECTIONAL VIEW OF THE BALEXTHERM-PU-F PANEL



## DETAILS OF THE BALEXTHERM-PU-F PANELS JOINT



Finishing elements for cold chambers and food stores constructed with the **BALEXTHERM-PU-F** panels are manufactured by the Caster Engineering company. Available elements: rounded corner, fenders, ceiling suspension sections, pedestal finishing sections, fastening screws, floor „U“-sections for partition walls, fastening system.



## PREMIUM COATING

CESAR PUR 55® - A POLYURETHANE COATING WITH POLYAMIDE BALLS



cherry  
3009



brick-red  
8004



chocolate-brown  
8017



silver-metallic  
9006



grey-aluminium  
9007



graphite  
7016



black  
9005



white  
9010

## ORGANIC COATINGS

SP POLIESTER



coral-red  
3016



red  
3011



red-brown  
8012<sup>1)</sup>



brick-red  
8004



chocolate-brown  
8017



signal-blue  
5010



light-blue  
5012



reseda-green  
6011



fir-green  
6020



dark-green  
6005



ivory  
1015



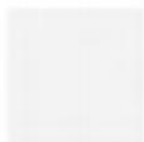
saffron-yellow  
1017



signal-yellow  
1003



white  
9010<sup>2)</sup>



grey-white  
9002<sup>1)</sup>



light-grey  
7035



silver-metallic  
9006<sup>3)</sup>



grey-aluminium  
9007



graphite-grey  
7024<sup>1)</sup>



graphite  
7016<sup>3)</sup>



black  
9005

MATT PEARL SP POLYESTER



brick-red  
8620M



red  
3301M



chocolate-brown  
8637M



fir-green  
6490M



graphite-grey  
7591M



black  
9005M

PVC(F)  
FOOD SAFE



white  
9010

MATT HDP POLYESTER



rustika  
8004



malaga  
1014

## METALLIC COATINGS

AZ - ALU-ZINC  
+ EASYFILM®



Z - ZINC



## OTHER

STAINLESS  
STEEL



TITANIUM  
ZINC



Colours presented in the materials are only visual. Balex Metal stipulates the right to occurrence of colour differences between sample-card and actual product colour.

Presented colours available in offer of 0.50mm thick steel

1) colour available also for steel of thickness 0.60mm

2) colour available also for steel of thickness 0.60mm and 0.70 mm