



EXPANDED POLYSTYRENE CORE WALL SANDWICH PANELS

PWS

FEATURES

- high thermal insulating power - self-extinguishing expanded polystyrene core and tight joint of panels
- high fire tightness - both-sided shape of the panel-and-lock joint
- easy assembly - appropriately profiled lock, low weight
- high durability of anti-corrosion coatings - appropriate technology for profiling the shape of metal facing
- aesthetic appearance

APPLICATION

- exterior and partition walls
- structure insulation
- industrial and commercial facilities
- agricultural facilities
- cold chambers, freezer coldrooms



TECHNICAL PARAMETERS

Name	Expanded polystyrene core wall sandwich panels - PWS Expanded polystyrene core wall sandwich half-panels with single-sided steel facing and laminate - PWS-H					
Core	self-extinguishing expanded polystyrene with improved strength properties - EPS CS (10) 80 class					
Facing thickness [mm]	0.40 – 0.70					
Material	S250GD - S280GD grade steel					
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafte“, PVDF, galvanized, alu-zinc + easyfilm®, CESAR PUR 55* - a polyurethane coating with polyamide balls, superior life & durability					
Colouring	wide range of Balex Metal World of Colours – page 46					
Laminate	laminated non-whitened paper with aluminium foil and polyethylene (approx. 160 g/m²)					
Effective width [mm]	1155					
Total width [mm]	1173 +/-2					
Core thickness [mm]	75	100	125	150	175	200
Minimal panel length [mm]	2 000					
Maximal PWS panel length [mm]	10 000	15 000		17 000		
Maximal PWS-H panel length [mm]	6 000	8 000	9 000			10 000
PWS panel weight [kg/m²]	10	10,39	10,80	11,20	11,61	12,01
PWS-H panel weight [kg/m²]	5,95	6,35	6,76	7,16	7,57	7,97
Thermal transmittance U_c [W/m²K]	0,50	0,38	0,30	0,25	0,22	0,19
Fire resistance	NRO*		E 60, Not spreading fire NRO			

* Not spreading fire NRO

NEW!

TYPES OF FACING PROFILES

R Grooving



G Flat

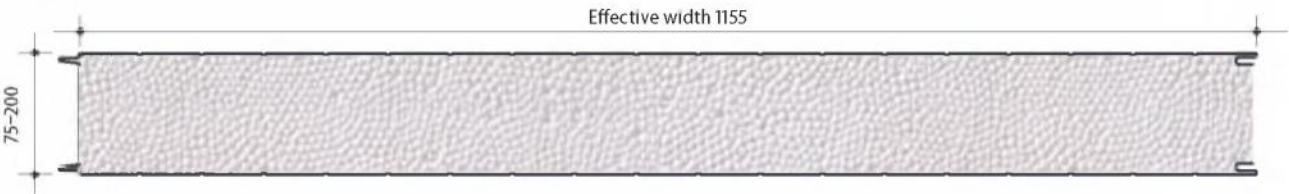


AVAILABLE TYPES OF FACING PROFILES

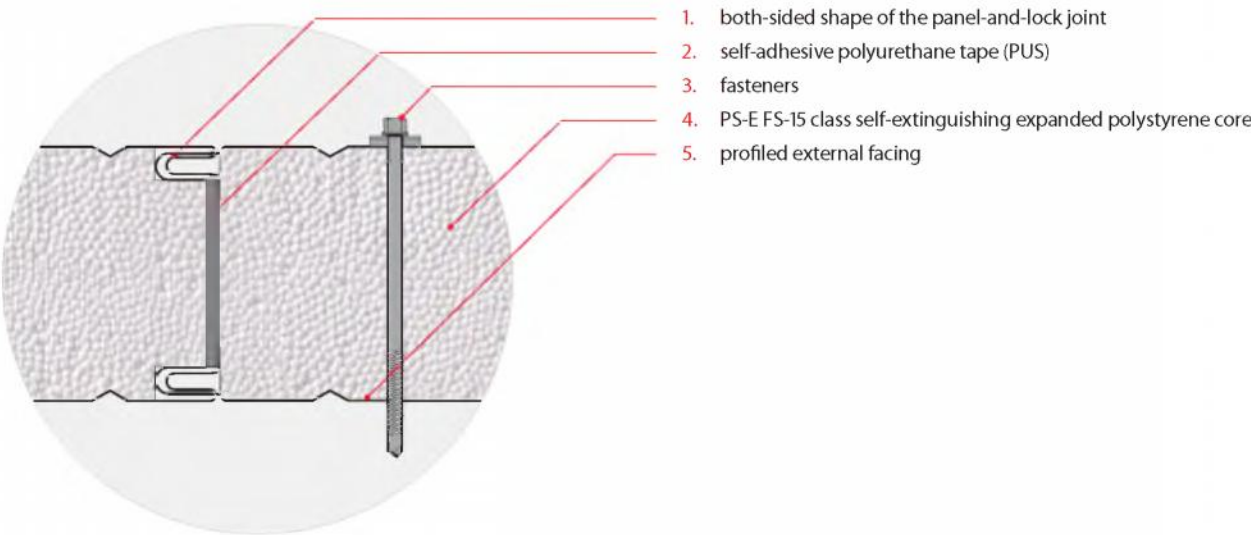
	PWS	PWS-H
External facing	R*	R*
Internal facing	R* G	LAMINATE

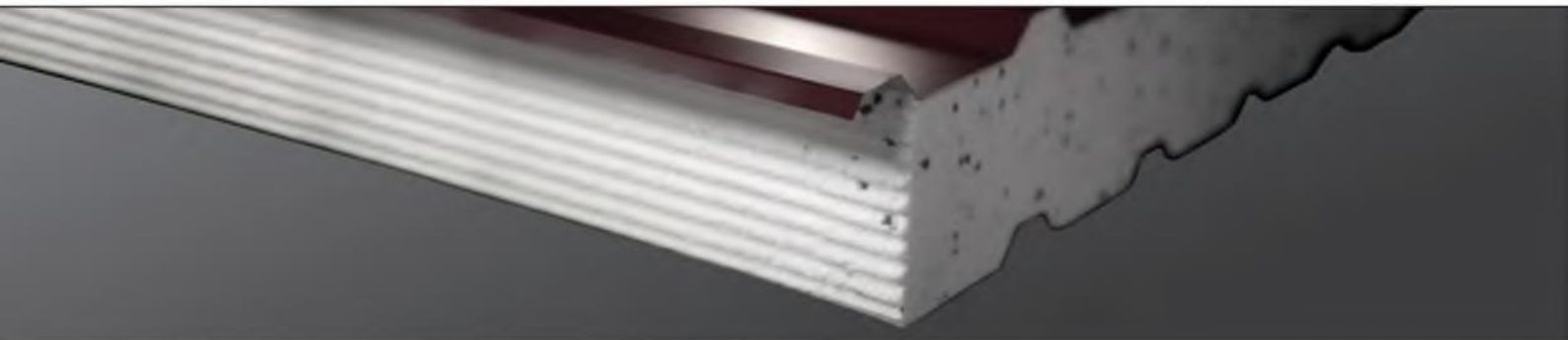
* grooving on wall sandwich panels PWS differs from remaining BALEX THERM-PU and BALEX THERM-MW panels from the offer BALEX METAL

SECTIONAL VIEW OF THE PWS PANEL



DETAILS OF THE PWS PANELS JOINT





EXPANDED POLYSTYRENE CORE ROOF SANDWICH PANELS

PWD

FEATURES

- high thermal insulating power - self-extinguishing expanded polystyrene core and tight joint of panels
- easy assembly - appropriately profiled lock, low weight
- good thermal insulating power - precise matching of panels
- aesthetic appearance
- unique utility model (Patent Office - application no. W114316)

APPLICATION

- roof and wall elements
- structure insulation
- industrial and commercial facilities
- agricultural facilities



TECHNICAL PARAMETERS

Name	Expanded polystyrene core roof sandwich panels - PWD Expanded polystyrene core roof sandwich half-panels with single-sided steel facing and laminate - PWD-H					
Core	self-extinguishing expanded polystyrene with improved strength properties – EPS CS (10) 80 class					
Facing thickness [mm]	0.40 – 0.70					
Material	S250GD - S280GD grade steel					
Coatings	SP polyester, matt pearl SP polyester, matt HDP polyester, PVC(F) „foodsafes“, PVDF, galvanized, alu-zinc + easyfilm®, CESAR PUR 55* - a polyurethane coating with polyamide balls, superior life & durability					
Colouring	wide range of Balex Metal World of Colours – page 46					
Laminate	laminated non-whitened paper with aluminium foil and polyethylene (approx. 160 g/m²)					
Effective width [mm]	1100					
Total width [mm]	1165 ±2					
Core thickness [mm]	75	100	125	150	175	200
Minimal panel length [mm]	2 500					
Maximal PWD panel length [mm]	10 000	15 000			17 000	
Maximal PWD-H panel length [mm]	6 000	8 000	9 000			10 000
PWD panel weight [kg/m²]	10,34	10,74	11,15	11,55	11,96	12,36
PWD-H panel weight [kg/m²]	6,09	6,49	6,90	7,30	7,71	8,11
Thermal transmittance U _c [W/m²K]	0,54	0,41	0,32	0,26	0,22	0,20
Fire resistance	E 30, Not spreading fire NRO		RE 30, Not spreading fire NRO			
Resistance of the roof to an external fire	B _{roof} (t ₁)					
Minimal roof slope	> 7% - for panels joined longwise or with rooflights > 5% - for continuous panels and without rooflights					

NEW!

TYPES OF FACING PROFILES

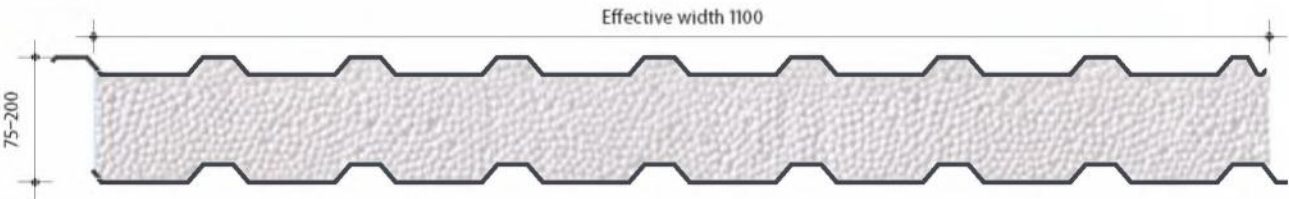
T Trapezoidal



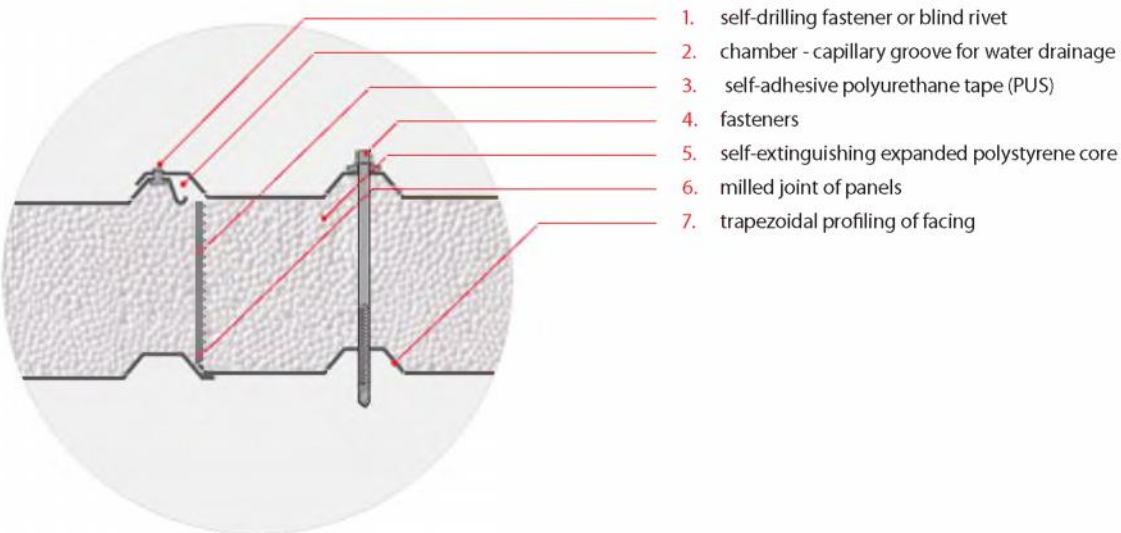
AVAILABLE TYPES OF FACING PROFILES

	PWD	PWD-H
External facing	T	T
Internal facing	T	LAMINATE

SECTIONAL VIEW OF THE PWD PANEL



DETAILS OF THE PWD PANELS JOINT



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
8012¹⁾



brick-red
8004



chocolate-brown
8017



signal-blue
5010



light-blue
5012



reseda-green
6011



fir-green
6020



dark-green
6005



ivory
1015



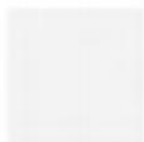
saffron-yellow
1017



signal-yellow
1003



white
9010²⁾



grey-white
9002¹⁾



light-grey
7035



silver-metallic
9006³⁾



grey-aluminium
9007



graphite-grey
7024¹⁾



graphite
7016³⁾



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