

**Quality Management System**

The manufacture of PVC sheets is subject to the Quality Management System under ISO 9001:2008, Occupational Health and Safety Assessment Series PN-N-18001:2004, BS-OHSAS 18001:2007. Our experienced and highly qualified team, our cautious approach to cautious supplier selection and our computer-controlled production process ensure that our products quality meets the customer's expectations.

**Service**

ANWIL applies our vast experience to assisting our business Partners; to provide solutions in a dynamically changing market.

**Environmental care**

ANWIL are proud recipients of the ISO 14001:2004 Management System, illustrating our emphasis to Environmental Care.

**Contact:**

**Plastics Sale Team**

**Marta Baranowska**  
Sales Specialist - PVC sheets  
tel. 54 414 35 28  
mobile 601 678 236

Mariusz Gierszewski  
Product Manager  
tel. 54 414 34 49  
mobile 601 733 613

Małgorzata Bilińska  
Sales Specialist - PVC compounds  
tel. 54 414 29 73  
mobile 605 190 415

Grzegorz Dębski  
Sales Specialist - PVC compounds  
tel. 54 414 35 62  
mobile 601 628 953



# ANWIPOR® sheets

ISO 9001 ISO 14001, PN-N-18001:2004  
BS-OHSAS 18001:2007



**ANWIL S.A.**  
87-805 Włocławek  
Toruńska 222 St.  
www.anwil.pl





## ANWIPOR® sheets

The Anwipor® sheets are produced by using a "Free Foam" extrusion method. Anwipor® contains no hazardous substances capable of causing harm to human health, when used in food or pharmaceutical applications, Anwipor® can improve the general hygiene environment (ANWIL have a comprehensive hygienic test regime in place). Our production standards meet the Quality Management System ISO 9001 (TÜV certificate). Anwipor® is a low ignition & flammability material, fire ratings are confirmed to ITB certificate (PN-EN 13501-1+A1:2010). Anwipor® sheets are noted for a high quality surface finish. As a result of our quality finish Anwipor Light® is recommended for digital printing and applying vinyl's.

Anwipor® is easy to machine using standard woodworking tools. Anwipor® is available in a comprehensive range of thickness from 1-10mm. Anwipor® has very low water absorption characteristics, good insulation qualities, and good tolerances to fluctuations in temperature. Anwipor® is unrivalled when it comes to weather performance.

Anwipor® sheets are commonly used in a wide variety of applications due to the sheet's excellent chemical resistance and general performance. We work hard to accommodate our customers' needs.

Anwipor® is produced in 3 standard formats: Anwipor®, Anwipor Light® and Anwipor-LC®.

## General application

### Advertising sector

- Digital Printing
- Sign Boards
- Notice Boards
- Point of Sale Displays
- Shop Fitting & Display Stands
- Built up Lettering

### Building industry sector

- Joinery Applications
- Ceilings
- Roll Cassette Construction
- Partition walls
- Fume Cupboards & Damp Coverings

## Anwipor® production program\*

Plate size	Thickness [mm]		
	Anwipor	Anwipor Light	Anwipor-LC
1000x2000	1-5	2-5	
1220x2440	1-10	2-5	
1220x3050	1-10	2-5	
2050x3050	1-10	2-10	2-5
1500x3050*	1-5	2-5	2-5

\* MOQ for 1500x3050 dimension is 10 tons in one thickness

\* Non-standard dimension or colors are available based on 10 MOQ per thickness.

Sheets are protected by protective film on one sheet side. All materials are palletized. Pallet protection comprises of; pallet wrap cardboard packing protection and metal banding. Packaging can be altered based on individual requirements. Thickness tolerance is "s0" for the thickness "s" is  $s0 = \pm(0,1 + 0,05xs)$ mm.

## Anwipor® technical data

Requirements	Unit	Anwipor				Anwipor-L	Anwipor-LC
Thickness	mm	1	2	3-5	6-10	2-10	2-5
Density, max.	g/cm <sup>3</sup>	0,95	0,85	0,75	0,55	0,60	0,55
Hardness min.	°Sh D	50	45	45	42	30	30
Tensile strength, min.	MPa	18	18	12	10	10	10
Relative elongation at break, min.	%	10	10	10	10	10	10
Modulus of elasticity, min.	MPa	800	800	800	600	600	600
Vicat softening point, min.	°C	73	73	73	73	73	73
Charpy notched impact strength,(*) min.	kJ/m <sup>2</sup>	-	-	2,0	1,0	1,0	1,0
Cold water adsorption, max.	%	1,0	1,0	1,0	1,5	1,5	2,0
Coefficient of linear thermal expansion, max.	°C <sup>-1</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	-
Coefficient of heat conductivity, max.	W/m·K	0,1	0,1	0,1	0,07	0,07	-
Surface resistivity, min.	Ω	1·10 <sup>13</sup>	-	-	-	-	-
Dielectric strength, min.	Mv/m	11	-	-	-	-	-
Flammability		Non flammable	Non flammable	Non flammable	Non flammable	Non flammable	Non flammable

\* Charpy notched impact strength. - only for PVC sheets ≥ 4mm thick



**Quality Management System**

The manufacture of PVC sheets is subject to the Quality Management System under ISO 9001:2008, Occupational Health and Safety Assessment Series PN-N-18001:2004, BS-OHSAS 18001:2007. Our experienced and highly qualified team, our cautious approach to cautious supplier selection and our computer-controlled production process ensure that our products quality meets the customer's expectations.

**Service**

ANWIL applies our vast experience to assisting our business Partners; to provide solutions in a dynamically changing market.

**Environmental care**

ANWIL are proud recipients of the ISO 14001:2004 Management System, illustrating our emphasis to Environmental Care.

**Contact:**

**Plastics Sale Team**

**Marta Baranowska**  
Sales Specialist - PVC sheets  
tel. 54 414 35 28  
mobile 601 678 236

Mariusz Gierszewski  
Product Manager  
tel. 54 414 34 49  
mobile 601 733 613

Małgorzata Bilińska  
Sales Specialist - PVC compounds  
tel. 54 414 29 73  
mobile 605 190 415

Grzegorz Dębski  
Sales Specialist - PVC compounds  
tel. 54 414 35 62  
mobile 601 628 953



# ANWIDUR® sheets

ISO 9001 ISO 14001, PN-N-18001:2004  
BS-OHSAS 18001:2007



**ANWIL S.A.**  
87-805 Włocławek  
Toruńska 222 St.  
www.anwil.pl





## ANWIDUR® sheets

The Anwidur® sheets are produced using an extrusion process to produce a quality hard, glossy surface finish. Anwidur® contains no hazardous substances capable of causing harm to human health, when used in food or pharmaceutical applications, Anwidur® can improve the general hygiene environment (ANWIL have a comprehensive hygienic test regime in place). Our production standards meet the Quality Management System ISO 9001 (TÜV certificate). Anwidur® is a low flammability rated material, fire ratings are confirmed to ITB certificate (PN-EN 13501-1+A1:2010). Anwidur® sheets are noted for a high quality surface finish. As a result of our quality finish Anwidur® is recommended for applying vinyl's. Anwidur® is easy to machine using standard woodworking tools. Anwidur® is available in a comprehensive range of thickness from 1-10mm. Anwidur® is safe to use when in contact with drinking water.

Anwidur® has very low water absorption characteristics, good insulation qualities, and good tolerances to fluctuations in temperature. Anwidur® is unrivalled when it comes to weather performance. Anwidur® sheets are commonly used in a wide variety of applications due to the sheet's excellent chemical resistance and general performance. We work hard to accommodate our customers' needs.

### General application

#### Advertising sector

- Sign Boards
- Notice Boards
- Shop Fitting & Window Displays
- Exhibition Stands

#### Electrical engineering

- Cubicles
- Cable Ducts

#### Building industry sector

- Joinery Applications
- Ceilings
- Ventilation and Air-conditioning applications
- Partition Walls
- „Modular Panel Production
- Retail Display & Construction
- Window Sills & Soffits

#### Other applications

- Tank Construction
- Tank Housing
- Construction
- Casing
- Galvanizing Baths
- Furniture
- Chemical Industry
- Laboratory Applications
- Sewage Treatment

## Anwidur® production program\*

Plate size	Thickness [mm]		
	PVC-UL uv	PVC-UT	PVC-UD uv
1000x2000	1-10	1-10	-
1220x2440	1-10	-	-
1220x3050	1-10	-	-
1500x3000	1-2	-	1-2
2000x3000	1-2	-	1-2

\* MOQ for 1500x3050 and 2000x3000 dimension is 10 tons in one thickness

\* Non-standard dimension or colors are available based on 10 MOQ per thickness.

Sheets are protected by protective film on one sheet side. All materials are palletized. Pallet protection comprises of; pallet wrap cardboard packing protection and metal banding. Packaging can be altered based on individual requirements. Thickness tolerance is "s0" for the thickness "s" is  $s0 = \pm(0,08 + 0,03 \times s)$  mm

PVC-UL uv – rigid sheet standard quality (only white RAL 9016)

PVC-UD uv – for sandwich panels production

PVC-UT – rigid technical sheet (grey 7011 only)

## Anwidur® technical data

Requirements	Unit	Anwidur			
		PVC UL uv	PVC UL ANTI-BAC	PVC UT	PVC UD uv
Density, max.	g/cm <sup>3</sup>	1,43	1,43	1,43	1,47
Hardness min.	°Sh D	75	75	75	78
Tensile strength, min.	MPa	48	48	55	55
Relative elongation at break, min.	%	20	20	15	15
Modulus of elasticity, min.	MPa	2000	2000	2500	3000
Vicat softening point, min.	°C	75	75	75	75
Charpy notched impact strength, (*) min.	kJ/m <sup>2</sup>	8,0	8,0	4,0	2,5
Cold water absorption, max.	%	0,08	0,08	0,08	0,08
Bending stress, total load, (**) min.	MPa	70	70	70	70
Surface resistivity only for PVC sheets with a thickness of 1mm, min.	Ω	1·10 <sup>14</sup>	1·10 <sup>14</sup>	--	--
Dielectric strength only for PVC sheets with a thickness of 1mm, min.	Mv/m	20	20	--	--
Permittivity only for PVC sheets with a thickness of 1mm, max	--	3,5	3,5	--	--
Dielectric loss factor only for PVC sheets with a thickness of 1mm, max	--	0,1	0,1	--	--
Coefficient of heat conductivity, max.	W/m·K	0,16	0,16	0,16	--
Coefficient of linear thermal expansion, max.	°C <sup>-1</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	80·10 <sup>-6</sup>	--
Flammability	--	Non-flammable	Non-flammable	Non-flammable	Non-flammable

\* Charpy notched impact strength – only for PVC sheets ≥ 4mm thick

\*\* Bending stress, total load – only for PVC sheets ≥ 3mm thick

## Antimicrobial sheets – PVC-UL ANTI-BAC

Anti-microbial PVC Sheets have a high level of effectiveness, the sheets maintain their inherent characteristics after washing and when used with hot water. PVC UL Antibac is used in areas requiring high resistance to bacteria i.e. – hospitals, operating theatre, restaurants, kitchens, toilets etc.

Field	Application
Daily Necessities	Cutting boards, bowls, dishes, installation of kitchen equipment (refrigerator, dish washer, dish dryer), shelves, sinks, emergency water tanks, shower trays and shower, toilet board, etc.
Car Parts	The dashboard and its components.
Building Materials	Flooring materials (floor coverings, walls), mat, artificial marble (for kitchen worktops, sinks and bathtubs), doors etc.
Medical	Measuring equipment, floor coverings, walls in hospitals and laboratories
Food Industry	Conveyor belt floor coverings, walls, food trays etc.