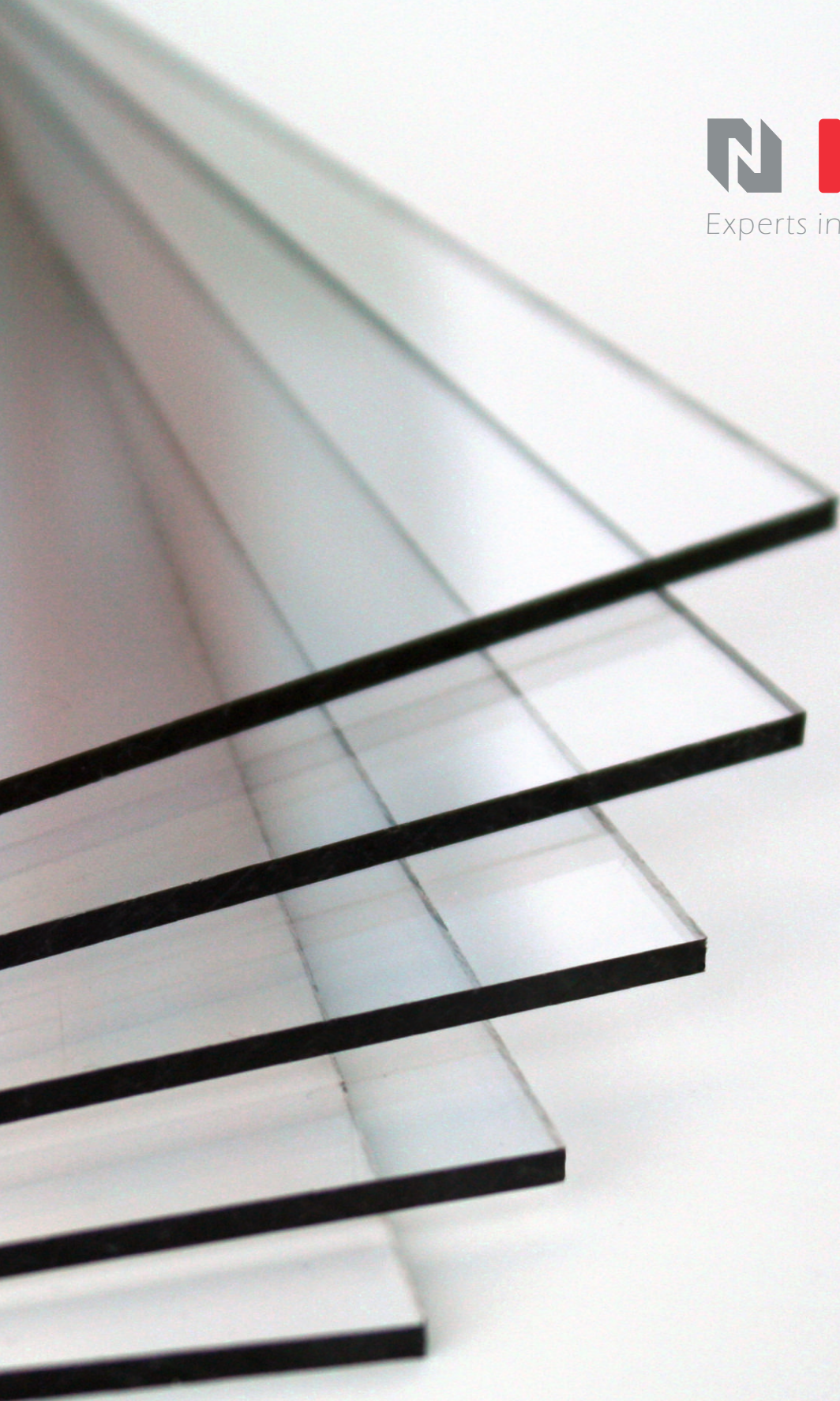




Experts in transparent sheets



## Product range

NUDEC®PET

NUDEC®PETg

NUDEC®PC

NUDEC®PMMA

NUDEC®SANuv

NUDEC®PS



NUDEC® PET 00

Polyethyleneterephthalate sheets					Thickness and number of sheets per pallet							
Pattern	Colour	Specifications	L. T.	Dimensions	0,5	0,7	0,75	1	1,1	1,5	2	3
Plain	Clear			3.050 x 2.050					100	70	50	35
				2.050 x 1.250	350	250		250		150	100	80
Arraglass	Clear			2.050 x 1.250		250		200		150		

				Thickness (mm - <i>in</i> ) and number of sheets per pallet								
Pattern	Colour	Specifications	Dimensions	0,5 - <i>.020</i>	0,75 - <i>.030</i>	1 - <i>.040</i>	1,5 - <i>.060</i>	2 - <i>.080</i>	2,5 - <i>.100</i>	3 - <i>.120</i>	4,5	5,6
Plain	Clear		2.440 x 1.220	400	260	200	130	105	85	72	48	38

NUDEC® PET 01

Polyethyleneterephthalate sheets					Thickness and number of sheets per pallet							
Pattern	Colour	Specifications	L. T.	Dimensions	4	5	6	8	10	12	15	20
Plain	Clear			3.050 x 2.050	25	20	15	10	8	6	5	4

NUDEC® PETg

Polyethyleneterephthalate copolymer sheets, modified with CHDM					Thickness and number of sheets per pallet													
Pattern	Colour	Specifications	L. T.	Dimensions	0,5	0,7	1	1,1	1,5	2	3	4	5	6	8	10	12	15
Plain	Clear			3.050 x 2.050				100	80	60	40	30	25	20	15	12	10	8
				2.050 x 1.250	300	250	200		150	120	80							
	Opal 529	UV 2 faces	38%	3.050 x 2.050						60	40	30						

				Thickness (mm - <i>in</i> ) and number of sheets per pallet										
Pattern	Colour	Specifications	Dimensions	0,5 - .020	0,75 - .030	1 - .040	1,5 - .060	2 - .080	2,5 - .100	3 - .120	4,5	5,6	6	
Plain	Clear		2.440 x 1.220	400	260	200	130	105	85	72	48	38	36	

NUDEC® PC

Polycarbonate sheets					Thickness and number of sheets per pallet											
Pattern	Colour	Specifications	L. T.	Dimensions	0,75	1	1,5	2	3	4	5	6	8	10	12	15
Plain	Clear			3.050 x 2.050			80	60	40	30	25	20	15	12	10	8
				2.050 x 1.250	250	200	150	120	75	60	50	40				
	Clear 211	UV 2 faces		3.050 x 2.050				60	40	30	25	20	15	12	10	8
	Opal 493	UV 2 faces	38%	3.050 x 2.050				60	40	30	25					
	Opal 645		35%	2.050 x 1.250		200										
	Bronze 625	UV 2 faces	40%	3.050 x 2.050					40	30	25	20	15			
Ref. 141	iFrost 642		75%	2.500 x 1.250			100	70								

				Thickness and number of sheets per pallet								
Pattern	Colour	Specifications	Dimensions	0,75	1	1,5	2	3	4	5	6	8
Plain	Clear		2.440 x 1.220	260			200					140

NUDEC® PMMA

Polymethylmethacrylate sheets					Thickness and number of sheets per pallet											
Pattern	Colour	Specifications	L. T.	Dimensions	1,5	2	2,5	3	4	5	6	8	10	12	15	20
Plain	Clear			3.050 x 2.050	80	60	50	40	30	25	20	15	12	10	8	6
	Opal 385		34%	3.050 x 2.050		60		40	30	25						
	Ice 519		70%	3.050 x 2.050		60		40								
	Opaque white 084		≤6%	3.050 x 2.050		60		40	30	25						
	Opaque black 377			3.050 x 2.050		60		40	30	25						
Microprism	Clear			2.500 x 1.250		100		60								
Arraglass	iFrost 381		75%	2.500 x 1.250		100		70								

NUDEC® PMMA HI

Polymethylmethacrylate high impact sheets					Thickness and number of sheets per pallet							
Pattern	Colour	Specifications	L. T.	Dimensions	2	3	4	5	6	8	10	12
Plain	Clear	HI25		3.050 x 2.050	60		40			30		25
		HI50		3.050 x 2.050	60		40			30		25

NUDEC® SANuv

Acrylonitrile - styrene sheets					Thickness and number of sheets per pallet						
Pattern	Colour	Specifications	L. T.	Dimensions	2	2,5	3	4	5	6	8
Plain	Clear	UV		3.050 x 2.050	60	50	40	30	25	20	15

Polystyrene sheets					Thickness and number of sheets per pallet							
Pattern	Colour	Specifications	L. T.	Dimensions	1,5	2	2,5	2,8	3	3,1	4	5
Plain	Clear			3.050 x 2.050	80	60			40		30	25
				2.000 x 1.340	200	125						
Arraglass	Clear	Anti-reflex		2.150 x 1.250	200							
				1.500 x 1.000	250							
44 Aqua Viva	Clear			2.000 x 1.340				100				
40 Gotas	Clear			2.000 x 1.340				100				
105 Milgotas	Clear			2.000 x 1.340				100				
134 Quadrat	Clear			2.000 x 1.340			100					
03 Cuarzo	Clear	UV		2.000 x 1.340				100				
16 PL	Clear	UV		2.000 x 1.340						80		
20 Teide	Clear	UV		2.000 x 1.340				100				

The stated light transmission (L. T.) corresponds with 3 mm thick sheets (except where stated otherwise). For details on other thicknesses, please refer to our R&D Department. Light transmission tolerance is ±5.



## Commitment to the environment

We care about the environment through clean manufacturing process will not damage the environment

Full control of processes, by keeping waste properly separated and controlled by authorised waste disposers. Furthermore, no atmospheric gases are emitted and optimum consumption of natural resources is achieved. An enormous effort that has earned the company the ISO 14001 environmental certificated issued by TÜV Rheinland Group. We also work towards arousing awareness among our employees about respecting the natural environment.



## Manufacture program of non standard products

The products registered in the manufacture program enable to choose the thickness and colour of the sheets. It must be taken into account that the tonality and light transmission can be different from trials carried out with standard products. For further information you can address to your Sales Area Manager or to NUDEC Commercial Department. It must be consulted the manufacture viability of special formats as well as production minimums. The quantity of the sheets for special sizes orders can range from 5% at the most.

Features									
Pattern	Colour	Specifications	PET00	PET01	PETg	PC	PMMA	SANuv	PS
Plain	Clear	UV 2 faces	●	●	●				
Plain	Black piano						●		
Plain	Opaque black					●		●	●
Plain	Opaque withe								●
Ref. 141	Clear	2 faces			●				
Ref. 141	Opaque black	2 faces							
Ref. 810 <sup>1</sup>	Opaque black					●			
Patterns <sup>2</sup>			●		●	●	●	●	●

<sup>1</sup> This relates to patterned sheets measuring 2.050 mm wide.

<sup>2</sup> Our range of patterns can be viewed on our website ([www.nudec-plastic.com](http://www.nudec-plastic.com)) and by going to *Products/ Patterns Viewer*.

Manufacturing features

Tolerances		
	PS / SANuv	PMMA / PET / PETg / PC
Long	±2 mm	±2 mm
Width	±1 mm	±1 mm
Squaring	3 mm	3 mm
Thicknesses	±0,1 mm	≤2,5 mm ±10%
		>2,5 mm ±5%

Technical features

Specifications										
	Code	Unit	PET	PETg	PC	PMMA	HI25	HI50	SANuv	PS
Physical										
Density	ISO 1183	g.cm <sup>3</sup>	1,34	1,27	1,20	1,19	1,18	1,17	1,08	1,05
Mechanical										
Tensile strength to deformation	ISO 527	MPa	59	53	60	-	-	-	-	-
Tensile strength to breaking	ISO 527	MPa	Does not break	26	72	83	70	65	67	59
Elongation to breaking	ISO 527	%	Does not break	>200	150	5	10	15	2,5	3
Elasticity modulus in traction	ISO 527	MPa	2.420	2.200	2.300	3.200	2.750	2.600	3.700	3.250
Stiffness	ISO 178	MPa	86	79	97	120	-	-	97	106
Charpy impact test with notched specimen	ISO 179	Kj.m <sup>-2</sup>	-	10	55	-	-	-	1,28	1,47
Charpy impact test	ISO 179	Kj.m <sup>-2</sup>	Does not break	Does not break	-	20	35	50	17	16
Rockwell hardness, M/R scale			-/111	-/115	72/118	92/-	-	-	83/-	-
Ball pressure hardness	ISO 2039	MPa	117	-	-	185	-	-	165	150
Optical										
Light transmission	ASTM D-1003	%	89	88	87-91	92	92	92	86	89
Refractive index	ASTM D-542	%	1,58	1,57	1,59	1,49	1,49	1,49	1,56	1,59
Thermal										
Maximum continuous usage temperature		°C	60	60	120	80	-	-	85	80
Softening temperature, VICAT (10 N)	ISO 306	°C	79	83	-	116	-	-	108	106
Softening temperature, VICAT (50 N)	ISO 306	°C	75	78	151	107	102	100	105	101
Heat deflection temperature, HDT A (1.8 MPa)	ISO 75-2	°C	69	68	143	97	93	92	98	86
Heat deflection temperature, HDT B (0.45 MPa)	ISO 75-2	°C	73	72	146	101	-	-	101	98
Coefficient of linear ternal expansion	ISO 75-2	x10 <sup>-5</sup> . °C <sup>-1</sup>	<6	6,8	6,8	7	-	-	7	8

Standard characteristics of resin.  
This data comes from raw material values.

Chemical resistance						
Chemical product	PET	PETg	PC	PMMA	SANuv	PS
Mineral oil						
Vegetable oil	S	S	S	S	S	S
Acetone	U	U	U	U	U	U
Acetic acid	S	R	S	U	R	S
Water	S	S	S	S	S	S
Turpentine	S	S	U	R	U	U
Ammonia	U	U	U	R	S	S
Detergents	S	S	S	R	S	S
Ethanol	S	S	S	U	R	S
Petrol	S	S	I	S	S	U
Glycerine	S	S	R	S	S	S
Methanol	R	R	U	U	R	S
Toluene	S	U	U	U	U	U

Behaviour: S (satisfactory), R (regular), U (unsatisfactory).

For further information about our sheets, please contact our Technical Department.

## NUDEC® PET

### Polyethyleneterephthalate sheets

NUDEC®PET sheets have a good fire resistance classification because they are selfextinguishing. They can be used with food products and their high resistance to chemical agents and environmental impacts. They also save time and energy because they do not require prior drying and are quickly thermoformed. There are many uses for this type of sheet, which range from domes, building roofs, greenhouses to shields and anti-vandal protection, glazing applications, signs, displays, trays and dispensing machines etc. Some of these applications require UV treatment.

## NUDEC® PETg

### Polyethyleneterephthalate copolymer sheets modified with CHDM

Displays, moulds, signs, orthopaedics, toys, dispensing machines, cycling helmets, protective masks and containers, among many other products, can be produced using these sheets. Its hardness, impact strength and chemical agent resistance, together with its transparency and ductility are among its main characteristics. Similarly, these qualities make NUDEC®PETg easy to handle, stressing that it can be cold-bent (up to 2-mm thick) and cut, even by laser.

## NUDEC® PC

### Polycarbonate sheets

Polycarbonate sheets are noteworthy for their high performance, as well as high impact strength and heat resistance (maximum continuous environmental temperature is 120 °C, which makes it an ideal product for the manufacture of protective elements both for persons and machines. It finds extensive use in construction applications (walls, roofs and glazing etc). It is available with UV protection. It is the optimum material for signs, machinery, dispensing, display and PLV, etc.

## NUDEC® PMMA

### Polymethylmethacrylate sheets

In view of its excellent stability to outside weather, its ease of moulding and high degree of transparency and light transmission (92%), these sheets are ideal for signalling, sign and lighting products. Their high optical quality also makes them suitable for certain magnifying glasses, lenses and for manufacturing mirrors. Other products for publicity, points of sale, canopies, separating screens or domes can also be produced with these sheets.

## NUDEC® SANuv

### Acrylonitrile - styrene sheets

Among the many properties that define these sheets are their mechanical and chemical resistance, hardness and ease of handling and moulding. All these make them especially recommended for industrial parts, such as cold chambers and freezers, audio and video components, glazing to garage and facavan doors, containers and packaging, displays and showcases etc.

## NUDEC® PS

### Polystyrene sheets

The high light transmission (89%) provides the sheets with excellent transparency for interior glazing usage, frames, lamps and ceiling light fittings. For this latter type of applications, the smooth white, porcelain, ice or technical prints are very suitable, thanks to their special design and factory incorporated UV treatment. Similarly, NUDEC®PS sheets comply with the European EN 71 on toy safety, which means that they are also suitable for this product type. Their low tendency to absorb water facilitates their use in humid environments and applications, such as bath or shower cabin doors and consumer electronics. Other possibilities for these sheets include household items, DIY, displays, showcases, stairway sides, ambience dividers, interior glazing for doors or windows.



NUDEC®PET

NUDEC®PETg

NUDEC®PC

NUDEC®PMMA

NUDEC®SANuv

NUDEC®PS

#### RESPONSIBILITY CLAUSE ■

- NUDEC, S. A. supplies its products according to the indications carried out by the purchaser regarding to the material and quality requested, always above NUDEC, S. A. manufacturing standards. In this sense, NUDEC, S. A. provides to his customers all the professional and technical information which comes from the analysis of its products. However, no warranty is neither foreseen nor understood, whatever it is explicit or implicit, about the properties of the product in the legal sense.

- Once carried out the delivery of the material on behalf of NUDEC, S. A., the purchaser is fully responsible of the subsequent application, treatment, use and/or purpose of the material, whatever if the material is used by the purchaser in question or other third parts, with entire indemnity for NUDEC, S. A. Moreover, according to containers and residues regulations (Act 11/1997 and Europe Directive 94/62/CE) the final holder is responsible of the correct management of the container's residues.

- The purchaser will be the only responsible for carry out the trials, tests or analysis of any nature which are necessary to verify that the product can be exactly applied to the aim wished by the purchaser or by third parties to whom the purchaser supply or install the product.

- NUDEC, S. A. will remain exempt from an inadequate or defective application of its products on the part of the purchaser or third parties, assuming only the damages derived directly from possible faults of its origin products. The possible lawsuit and controversy between NUDEC, S. A. and its customers will be submitted to the courts of Sabadell (Barcelona, Spain).

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