PRODUCT CATALOG

AURORA

ENGINEERING SUPPLIES

SOLID PRO® QUANTUM PRO® POLY PRO® GLOVE PRO® Ti PRO® ALU PRO® ACRYLIC PRO® MAT PRO®

SOLiD PRO

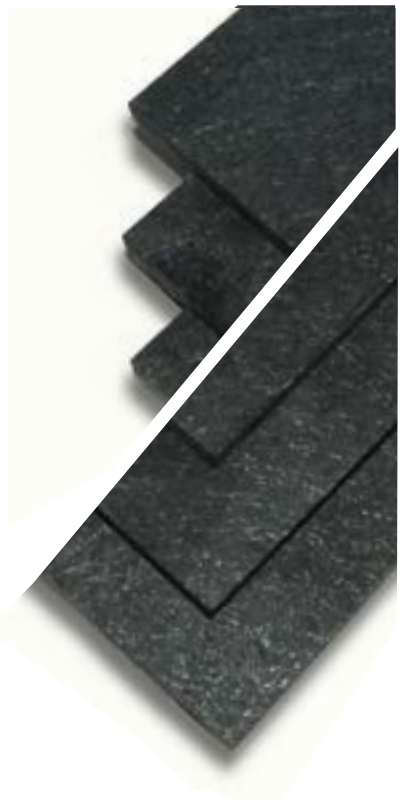
DESCRIPTION: SolidPro is designed for machining high quality pallets used in the electronic industry, principally in the solder wave process.

DIMENSIONS PER SHEET: 1.22 mts. x 2.44 mts.

THICKNESS*(mm)*: 3, 4, 5, 6, 8, 10, 12

COLORS: black, green, wood

ATTRIBUTES	UNIT	DETAIL
DENSITY	G/CM^3	1.9
SURFACE RESISTANCE	Ω	10^5 - 10^9
BENDING STRENGHT 23 °C	Mpa	480
THERMAL CONDUCTIVITY	W/M.K	0.68
CONTINUOUS WORKING TEMPERATURE	°C	280
MAXIMUM DISCONTINUOUS OPERATION TEMPERATURE	°C	330
CORROSION RESISTANCE		BUENA
THICKNESS TOLERANCE	Mm	±0.1



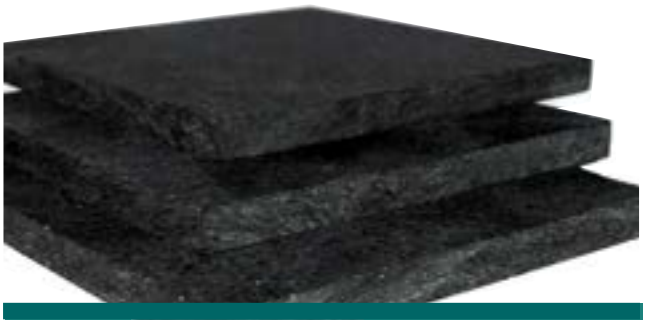
SOLiD PRO MR

APPLICATIONS

- Pallet manufacture for SMT process
- Full process solder wave, SMT and selective soldering process
- Soldering in reflow oven

COST REDUCTION

- Less amount of cleaning cycles and less degradation from Flux corrosives (+ more cycles quantity).
- SolidPro lasts 1.5 – 1.7 times more than any other product in the market (aprox. 40% cost avoidance).
- SolidPro laminate price, 30% cost reduction against other products in the market.
- In average life cycle of pallet is 3 - 4 months, SolidPro can last up to 5 - 6 months resulting on buying less quantity of pallets.



ADVANTAGES

- Electrostatic discharge (ESD)
- Dissipative Compound: surface resistivity 10E5 a 10E9 ohms
- Outstanding machinability:
  While using SolidPro in CNC cutting machines, tool degradation is half that of other products within the sector
- High temperature resistant: 300 0C
- When cutting shapes/edges they turn out 100% neat and perfectly cut, there is no need to rework cut edges.
- Perfect for small, medium or big size pallets; no deformation.
- SolidPro has been in the market for almost 4 years and field performance has been outstanding; with no defects reported from our consumers (zero DPPM's)
- Flux repellent, as part of is tunic formula SolidPro has a special additive that repels a great amount of fluids.(all types, abrasive, corrosive, etc.).

* In colors other than black, minimum consumption of one ton (28 to 30 sheet depending on thickness).

QUANTUM PRO®

DESCRIPTION: High quality antistatic EVA. This product, which is divided into conductive *(CVP)* and dissipative type *(DVP)* two kinds with high strength, features good toughness and permanent anti-static function, low friction, and short electro-static charge decay time.

DIMENSIONS PER SHEET: 1.25 mts. x 2.55 mts.

THICKNESS*(Inch)*: ¼, ½ , ¾ , 1 , 1 ½

ATTRIBUTES	UNIT
DENSITY	120 KG/m^3
SURFACE RESISTIVITY	10^6—10^9 Ω^2
HARDNESS	50 - 55^0
VOLUME RESISTIVITY	10^6—10^9 $\Omega \cdot cm$
STATIC VOLTAGE DECAY TIME	< .51.0S
FRICTION ELECTROSTATIC VOLTAGE	<100V

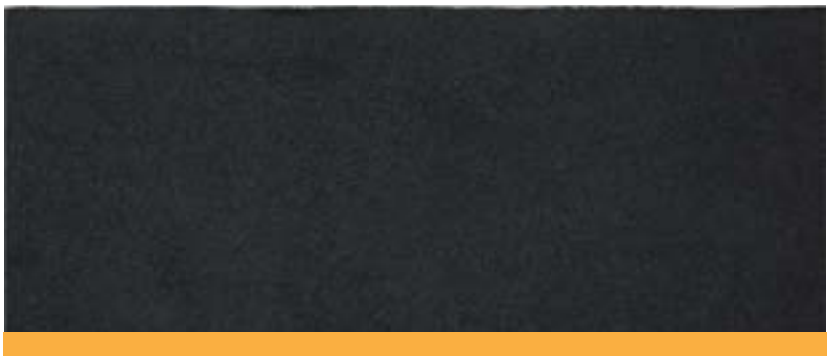
QUANTUM PRO®

ADVANTAGES

- Electrostatic discharge *(ESD)*
- QuantumPro is not affected by air temperature in external environments
- Surface resistance can be Ω 103-106 for conductive *(CVP)*, and *(DVP)* 106-109 Ω for dissipative

APPLICATIONS

- Antistatic trays.
- Support for repair cards.
- Industrial Footwear ESD.
- Divisions
- Security guards



POLY PRO®

DESCRIPTION: PolyPro is High quality and high resistant polyamide tape exhibiting an excellent balance of physical, chemical, and electrical properties over a wide temperate range, particularly at unusually high temperatures.

DIMENSIONS Tape width: ¼" , ½" , ¾" , 1"

Tape lenght: 36 yards

ATTRIBUTES	TEST METHOD	NORMAL	MINIMUM
ADHESIVE		SILICONE	
SUBTRATE / CARRIER		POLYAMID FILM	
SUBSTRATE THICKNESS (mil/mm)	ASTM D 1000	1.00 / 0.055	
TOTAL THICKNESS	ASTM D 1000	2.20 / 0.057	2.12 / 0.0
COLOR		AMBAR	
ADHESION TO STEEL (N/25mm) (kg/25mm)(oz/in)	ASTM D 1000	5.6 / 570 / 20	4.4 /450 / 16
TENSILE STRENGHT (N/25mm) (kg/25mm)(lb/in)	ASTM D 1000	127 / 13 / 29	118 / 12 / 26
ELONGATION (%)	ASTM D 1000	65	60
DIELECTRIC STRENGTH (kv)	ASTM D 149	5.0	4.5
CLASS IF INSULATION(°C/°F)	UL 510	ULH / 200	
RANGE OF TEMPERATURE (°C / °F)		-73 ~ 260 / -100 ~ 500	

POLY PRO®

ATTRIBUTES	UNIT	TOLERANCE	STANDAR VALUE	TEST METHOD
BASE THICKNESS	mm	0.020 - 0.030	0.025	
TAPE THICKNESS	mm	0.055 - 0.060	0.055 - 0.060	PSTC - 71
LONGITUD	M	32.5 - 33.5	33.0	
ADHESION TO STEEL	N / 25mm	4.0 - 8.0	5.4	PSTC - 101
TENSILE STRENGHT	N / 25mm	100 - 140	115	PSTC - 31
ELONGATION	%	35 - 70	50	PSTC - 31
DIELECTRIC BREAKDOWN	Kv	5.0 - 8.0	8.5	
TEMPERATURE RATING	oC		-73 - 300	

ADVANTAGES

- Electrostatic discharge
- High temperature resistant

APPLICATIONS

- Circuits board protection

GLOVE PRO®

LAB & UTILITY

NITRILE GLOVES

TYPE: Non sterile, powder free.

DESIGN: Ambidextrous, Powder Free, Smooth Grip, Beaded cuff.

STORAGE: Gloves should be stored in a dry ventilated area not to exceed 100 ° F *(37 ° C).*

PACKAGING: 100 gloves per dispensers, 10 dispensers per shipper carton, 1000 gloves per shipper cartons

ATTRIBUTE	XS	S	M	L	XL	TOLERANCE
WEIGHT (grs/pz)	3.0	3.5	4.0	4.5	5.0	±0.3
LENGHT	240	240	240	240	240	±5
PALM WIDTH	80	85	95	105	115	±5
FINGER THICKNESS	0.08					±0.02
PALM THICKNESS	0.08					±0.02
CUFF THICKNESS	0.08					±0.01
TENSILE STRENGTH: BEFORE AGING	18 Mpa					min
AFTER AGING	14 Mpa					min
ELONGATION(%): BEFORE AGING	600					min
AFTER AGING	500					min

GLOVE PRO®

ADVANTAGES & APPLICATIONS

- Outstanding Chemical Resistance on an even wider range of chemicals it resists a greater variety of industrial chemicals for longer periods than any other nitrile disposable glove
- Excellent puncture resistance, it offers up to four times the puncture resistance of comparable natural rubber latex, and three times the resistance of similar neoprene gloves.
- Prevention from type I allergy, it contains no natural rubber latex proteins, which prevents from type I allergies for the wearer.
- Primary skin irritation studies and tests have also shown no evidence of risk from irritation or allergic contact dermatitis.
- "Thin Nitrile Technology" formulation, offers easy donning and strong grip in wet or dry conditions. The glove is highly versatile and suitable for many different uses

*Excessive heat, fluorescent light, sunlight, and moisture can limit the glove.

GLOVE PRO®

VINYL GLOVE

TYPE: Non sterile, powder free.

DESIGN: Ambidextrous, Beaded cuff, clear or blue

STORAGE: Gloves should be stored in a dry ventilated area not to exceed 100 ° F *(37 ° C).*

ATTRIBUTE	XS	S	M	L	XL	TOLERANCE
WEIGHT (grs/pz)	3.5	4.0	4.5	5.0	5.5	±0.3
LENGHT	240	240	240	240	240	±5
PALM WIDTH	80	85	95	105	115	±5
FINGER THICKNESS	0.07					±0.02
PALM THICKNESS	0.08					±0.02
CUFF THICKNESS	0.05					±0.01
TENSILE STRENGTH:	11 Mpa					min
ELONGATION(%):	500					min

GLOVE PRO®

ADVANTAGES

- DOP Free,Available both powdered and powder free.
- No latex proteins, good alternative for those suffering from type I allergies
- Suitable for food handling, except for fatty food.
- Practical barrier for wide range of applications.
- Very soft, good fit, feel and performance. AL1.5,2.5.4.0 available.

APPLICATION

- Cleaning
- Health care
- Industrial

*Excessive heat, fluorescent light, sunlight, and moisture can limit the glove.

GLOVE PRO®

LATEX GLOVE

TYPE: Non sterile, powder free.

DESIGN: Ambidextrous, Beaded cuff, milky white.

STORAGE: Gloves should be stored in a dry ventilated area not to exceed 100 ° F *(37 ° C).*

ATTRIBUTE	XS	S	M	L	XL	TOLERANCE
WEIGHT (grs/pz)	4.5	5.0	5.5	6.0	6.5	±0.3
LENGHT	240	240	240	240	240	±5
PALM WIDTH	80	85	95	105	115	±5
FINGER THICKNESS	0.10					±0.02
PALM THICKNESS	0.10					±0.02
CUFF THICKNESS	0.07					±0.01
TENSILE STRENGTH: BEFORE AGING	18 Mpa					min
AFTER AGING	14 Mpa					min
ELONGATION(%): BEFORE AGING	650					min
AFTER AGING	500					min

GLOVE PRO®

ADVANTAGES

- Beaded cuff for easy donning and prevention of roll back.
- Excellent and tactil sense.
- Textured for improved grip, powder free gloves inner coated.
- Low level of extratasable proteins and chemical residue.
- Food safe, suitable for handling all foodstuffs AL1.5,2.5.4.0 available

APPLICATION

- Cleaning
- Health care
- Industrial
- Medical
- Food proicessing
- Laboratory

*Excessive heat, fluorescent light, sunlight, and moisture can limit the glove.

Ti PRO®

GRADO 2

DESCRIPTION: Low mechanical resistance, soft, the purest of all titanium, very ductile and easy cold formability.

SHEET DIMENSION 12 x 12 inch / 24 x 24 inch

THICKNESS*(Inch)*: 1/8 1/4 3/8 3/16 1/2 3/4 1

*We have different measures according to consumer needs.

CHEMICAL COMPOSITION

PERCENTAGE PER WEIGHT	
C	0,02
H	0,015
Fe	0,3
N	0,03
O	0,25
Ti	BALANCE

PHYSICAL PROPERTIES

ELASTICITY MODULE IN TENSION	103 GPa 14,9 X 10^3 ksi
DENSITY	0,163 lb/in^3 4,51 g/m^3
SPECIFIC HEAT (32 - 212°F)	0,124Btu/lb/°F
ELECTRICAL RESISTIVITY	a 68°F: 56 microhm - cm
MELTING POINT	1.660°C
THERMAL CONDUCTIVITY	9,5 Btu/hr·ft·°F
LINEAR THERMAL EXPANSION COEFFICIENT	8,6 x 106/°C (0-100°C)

Ti PRO GRADE 2

MECHANICAL PROPERTIES

MECHANICAL PROPERTIES AT ROOM TEMPERATURE	
0.2% Offset elastic limit	
Ksi	20
Mpa	276
Tensile strength	
Ksi	50
Mpa	345
Elongation	20
Area reduction	30

ADVANTAGES

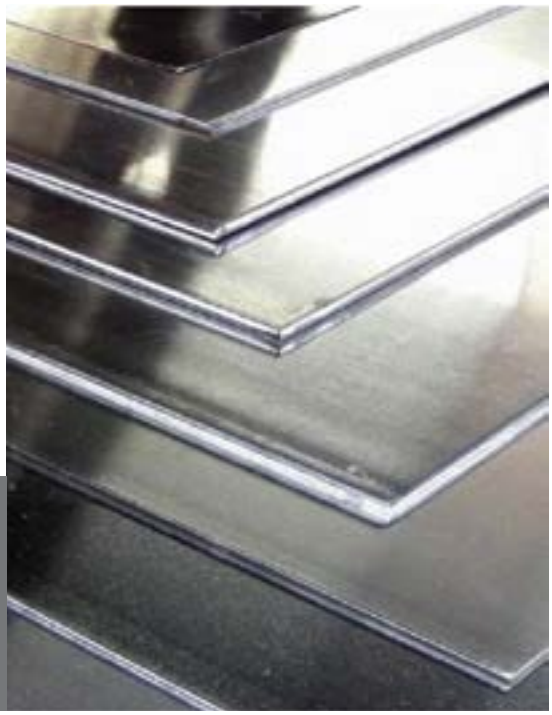
- Excellent weldability.
- High corrosion resistance
- Ductility

APPLICATION

- Electronic Industry
- Energy Industry
- Automotive Industry
- Development of medical and chiropractic instruments

STÁNDARDS

AMS 4902, AMS 4941, AMS 4942 / ASTM B337, ASTM B338, ASTM B348, ASTM B348 (2), ASTM B381, ASTM F467 (Ti-2), ASTM F468 (2), ASTM F67, ASTM F67 (2) / DIN 3.7035 / MIL T-9046, MIL T- 9047 / UNS R50400



TiPRO
GRADE 3

DESCRIPTION: Grade 3 titanium is stronger than the grade 1 and 2, similar in ductility, it has greater mechanical and is slightly less formable.

Slightly higher strength than titanium gr. 2. Similar corrosive resistant. Good weldability and cold formability.

DIMENSION PER SHEET: 12 x 12 inch / 24 x 24 inch

THICKNESS*(Inch)*: 1/8 1/4 3/8 3/16 1/2 3/4 1

*We have different measures according to consumer needs.

CHEMICAL COMPOSITION

PERCENTAGE PER WEIGHT	
C	0,1
H	0,015
Fe	0,3
N	0,05
O	0,35
Ti	BALANCE

PHYSICAL PROPERTIES

ELASTICITY MODULE IN TENSION	105 GPa 15.200 ksi
DENSITY	0,163 lb/in^3 4,42 g/m^3
SPECIFIC HEAT (32 - 212^{0}F)	0,124 Btu/lb/^{o}F 0,523 J/g-^{o}C
ELECTRIC RESISTIVITY	a 20^{o}C: 5,4e-005ohm - cm
MELTING POINT	1.660^{o}C
THERMAL CONDUCTIVITY	19,9 W/m -·K 138 BTU - in/hr-ft-^{o}F
LINEAR THERMAL EXPANSION COEFFICIENT	8,6 µm/m ^{o}C 4,78 µin/in - ^{o}F

TiPRO
GRADO 3

MECHANICAL PROPERTIES

MECHANICAL PROPERTIES AT ROOM TEMPERATURE	
0.2% Offset elastic limit	
psi	54.700 - 75.400
Mpa	375 - 520
Tensile strenght	
psi	63.800
Mpa	440
Elongation	18 %
Hardness	
Brinell	225
Rockwell	90

ADVANTAGES

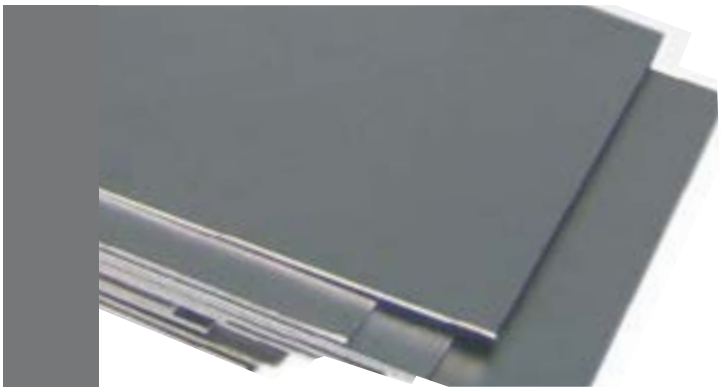
- Excellent weldability.
- High corrosion resistance
- Ductility

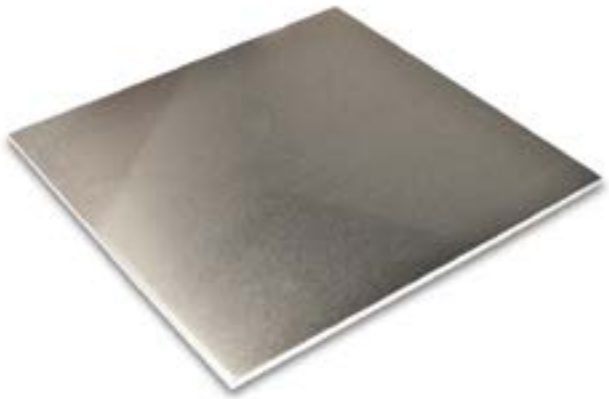
APPLICATION

- Airframe Structures
- Equipment for processing chemicals
- Medical Industry
- Marine Environments

STANDARS

UNS R50550 / W.N. 3.7055 / DIN Ti III





DESCRIPTION: It is a hardened aluminum alloy containing aluminum as main element, magnesium and silicon

DIMENSION PER SHEET: 1.25 mts. x 2.5 mts.

THICKNESS*(Inch)*: ¼, $^3/_8$, ½ , ¾ , 1

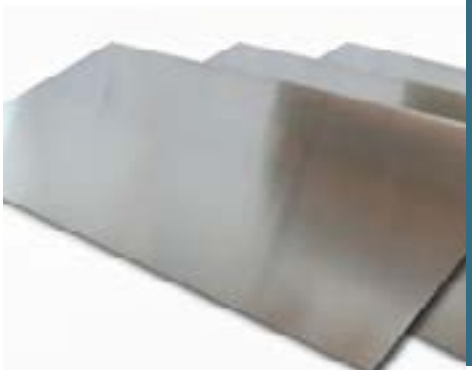
COMPOSICIÓN QUÍMICA EN %										
%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	Al
MIN	0.40		0.15		0.80	0.04				
MAX	0.80	0.70	0.40	0.15	1.20	0.34	0.25	0.15	0.15	Resto

PROPIEDADES FÍSICAS			
DENSITY (GR/CM^3)	2.7	Expansion Coef. (0 a 100 ºC) [ºC^{-1} x 10^6]	23.6
MELTING POINT ΩC)	575 - 650	Thermal conductivity (0 a 100 ºC) [W/m ºC]	Temper T6:167
ELASTICITY MODULE [MPA]	69500	Resistivity at 20 ºC [μ Ωcm]	Temper T6:4.0
POISSON COEFFICIENT	0.33	Specific heat (0 a 100 ºC)	940

ALU PRO®

PROPIEDADES TECNOLÓGICAS

PROCESS	CLASS	PROCESO	CLASS
Weldability:		**Maquinabilidad (Temple T6)**	
Electron beam	A	Chip cutting	A
Inert Gas (TIG or MIG)	B	Mechanized sup. Brightness	B
Resistance	B		B
Brazing	B		B
Deep Inlay:		**Corrosion resistance**	
Annealing		Atmospheric agents	A
Semi hard		Marine enviroment	B
Hard			
Embossment:		**Anodized**	
Temper 0		Protection	A
		Bright	C
		Hard	A



ADVANTAGES

- Weldable
- Corrosion and mechanical resistance

APPLICATIONS

- Shaped sheet metal components and / or welded, mechanical parts, plastic industry, trucks, towers, canoes, cars, furniture, pipes and other structural applications where required

ACRYLIC PRO

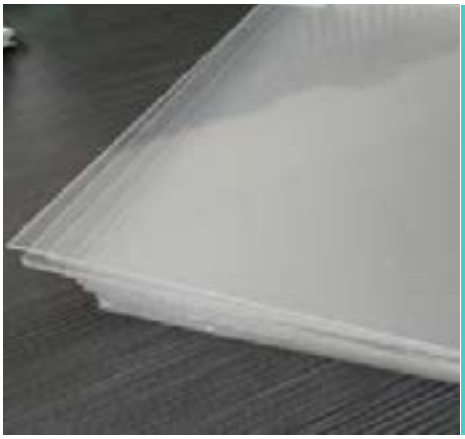
DESCRIPTION Antistatic high quality acrylic, developed mainly for electronics industry, manufacture and security guards.

DIMENSIONS PER SHEET: 1.24 mts. x 2.45 mts. , 1 mt. x 2 mts.

THICKNESS*(mm)*: 2,5,6,8

ATTRIBUTES		SPECIFICATIONS		TEST RESULTS S1	S2	J.M
DIMENSIONS	Size (mm)	± 1mm		o.k.	o.k.	o.k.
	Thickness	± 0.5mm		o.k.	o.k.	o.k.
PROPERTIES	Surface Resistance	10^6 ~ 10^8 Ω /cm^3		10^7	10^8	o.k.
	Adhesion	Cross hatch		o.k.		o.k.
APPEARANCE	Pin hole particle	2.0mm	< 3EA	1	1	o.k.
	Black spot	1.0mm	< 10EA	2	2	o.k.
	White spot					o.k.
	Bubble	<1.0 mm (not crowded)		o.k.	o.k.	o.k.
	Scratch	10mm	< 2EA	0	0	o.k.
	Color	Based on limit sample		o.k.	o.k.	o.k.
CHEMICALS	IPA (50%) rubbing (10 objetos)	no charge		o.k.		o.k.

ACRYLIC PRO®

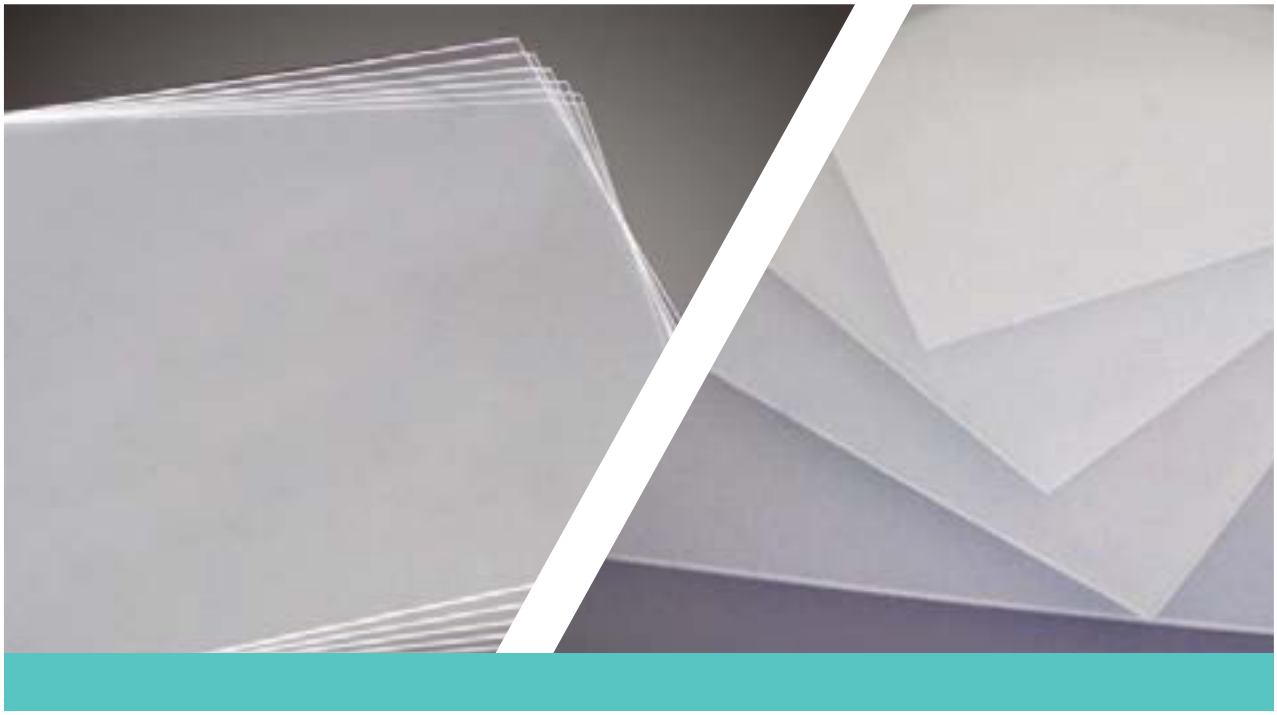


ADVANTAGES

- Electrostatic discharge *(ESD)*
- Transparent acrylic for better visibility

APPLICATIONS

- Antistatic Trays
- Support for repairing cards
- Divisions
- Security guards



MAT PRO®

DESCRIPTION antistatic protection rug for electronic devices in the work area

DIMENTIONS width*(cm)*: 120, 100, 80

lenght: 10 mts. per roll

thickness: 2mm.

APLICACIONES

- Support for repairing cards
- ESD protection in production line

VENTAJAS

- Electrostatic discharge *(ESD)*