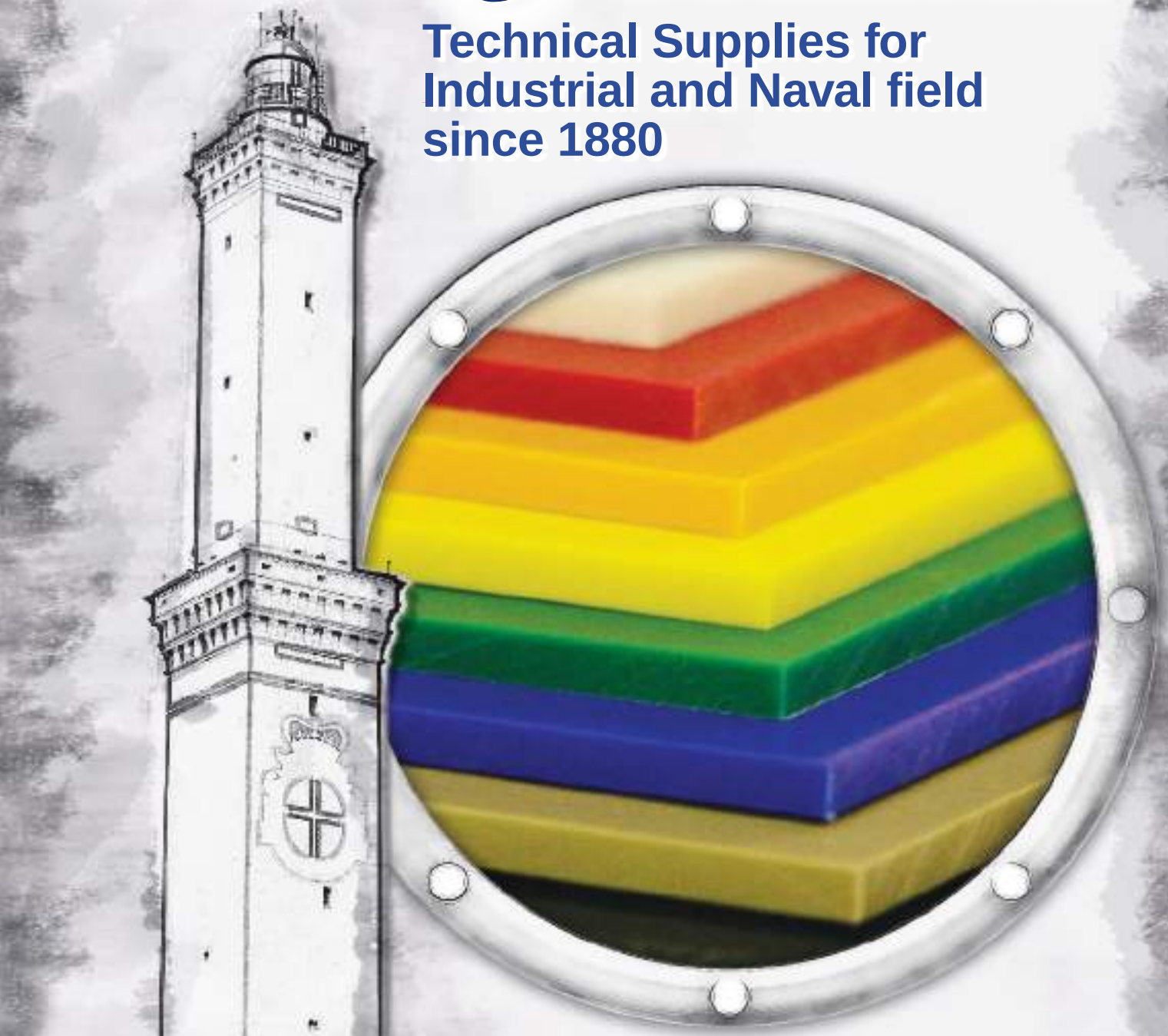
Monti & Barabino

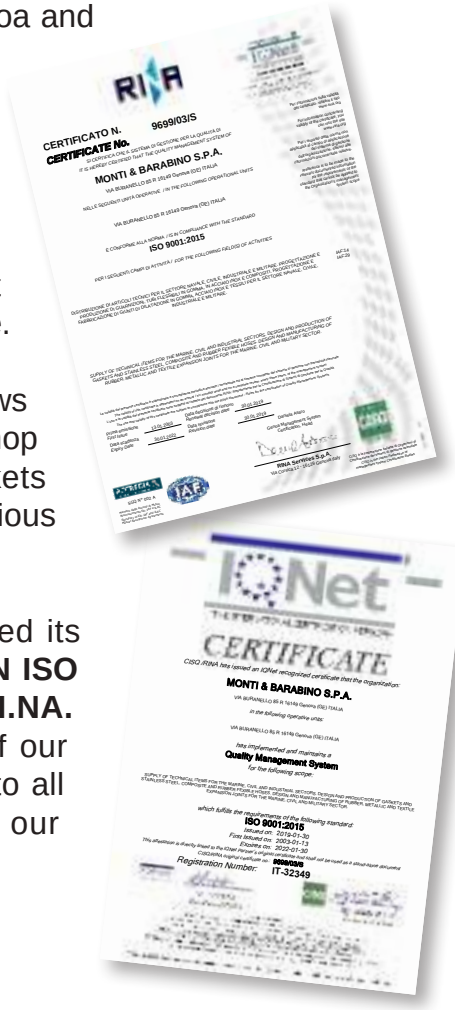
Technical Supplies for Industrial and Naval field since 1880



PLASTIC MATERIALS

M & B

Monti & Barabino, established in 1880, is based in Genoa and operates in the field of Technical Items supplies for the Industrial and Maritime Sectors.



The extremely wide experience matured in more than 135 years of activity and its highly qualified personnel composed by technicians, marine engineers, naval architects etc., enables the Company to offer the most complete and efficient technical and commercial assistance.

Moreover, the products stocked in its large warehouse allows it to promptly satisfy any kind of enquiry, while its workshop is able to manufacture all types of packings and gaskets comprising the moulding of rubber and elastomer of various types, including silicon, Fluoropolymer, Polyurethane, etc.

Since February 2004, Monti & Barabino S.p.A. improved its Quality Management System in accordance with **UNI EN ISO 9001** regulations, obtaining the certification through **R.I.NA.** This prestigious acknowledgement is a confirmation of our constant effort in offering excellent quality and service to all those Customers who have chosen and will choose our Company as their supplier.

Our workshop, acting as Parker Official distributor, is able to offer:

- FLEXIBLE HOSES FOR LOW, MEDIUM AND VERY HIGH PRESSURE
- MED APPROVED FLEXIBLE HOSES
- TYPE APPROVED SHIP TO SHORE AND INDUSTRIAL COMPOSITE HOSES
- HIGH PRESSURE STEAM HOSES
- HIGH PRESSURE CLEANING HOSES
- RUBBER, STAINLESS STEEL AND TEXTILE EXPANSION JOINTS

Moreover:

- HYDRAULIC TEST FACILITIES
- MANAGEMENT OF TESTING PROCEDURES IN PRESENCE OF CLASSIFICATION BODIES
- PRESSED FITTINGS ON LARGE BORE RUBBER HOSES UP TO 10”

Monti & Barabino S.p.A.
16149 Genova Sampierdarena (GE) - Via Buranello 85/R
Tel: +39010413341 - Fax: +39010414281
Web site: www.montiebarabino.it - e-mail: info@montiebarabino.it

MECHANICAL WORKSHOP and **PIPE WORKSHOP** are available for the execution of customized processes on our semi-finished products. Thanks to the wide availability of **WAREHOUSE** we are able to satisfy your needs in a short time, organizing and managing your shipments in a very short time.

We perform CNC turning and cutting on rubber and metal semi-finished products; we mold details and rubber gaskets.

We produce gaskets in any material, even according to Customer's design, including padded copper and spiral wound gaskets.

We sew and assemble insulating mats and textile joints: wide choice of fabrics for high temperatures.

Laser marking of finished products and components

We are an authorized Parker assembling center, hydraulic hoses up to 3" and industrial hoses up to 10".
Ask for our **FLEXIBLE HOSES** and **ACCESSORIES CATALOG**

Approved welders able to manufacture special fittings according to Customer's specifications.

We perform internal hydrostatic tests, also in the presence of an external Certifying Body.

POLYTETRAFLUOROETHYLENE PTFE

GENERALITY

PTFE is a polymer with very good physical and chemical characteristics. It is the most known and used among the engineering plastics. Excellent heat resistance and dielectric characteristics, no hygroscopicity, excellent resistance to ageing and low friction coefficient. PTFE is inert to virtually all chemical reactants and has a low heat transmission coefficient which makes it an insulating material. Available in sheets / round / sleeves.

PTFE is not particularly suitable for mechanical engineering. For these purposes it is added with various fillers such as fiber glass, carbon, graphite, in order to improve their mechanical characteristics.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	2,2
Water absorption	% by weight	100%	0,005
Tensile strength	Kg/cm^2	D638	150-280
Compressive strength	Kg/cm^2	D659	44
Deformation strength	Kg/cm^2	D790	n.a.
Impact strength	Kg/cm^2	D256	3
Hardness Rockwell	Kg/cm^2	D1706	n.a.
Modulus of elasticity	Kg/cm^2	D638	n.a.
Melting point	°C		357
Coefficient of thermal expansion	x °C		$13x10^{-5}$
Operating temperature	°c		260
Surface resistivity	Ohms		n.a.
Electric strength	KV/mm		n.a.
Dielectric constant		D150	21

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POLYTETRAFLUOROETHYLENE / CARBON
PTFE + C

GENERALITY

Carbon is added to the PTFE in a percentage between 10 and 35 b.w., along with a small percentage of graphite. The carbon improves considerably, wear resistance and deformation under load while leaves practically unchanged the chemical resistance. It improves electrical properties.

The reported values are referred to 15% carbon reinforcement.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	kg/dm^3	DIN 53479	2,1
Water absorption	% by weight	ASTM D 570	0,005
Tensile strength	N/mm^2	DIN 53455	15 - 20
Compressive strength	N/mm^2	D965	6,5 - 7,5
Deformation strength	Kg/cm^2	D790	n.a.
Impact strength	Kg/cm^2	D256	n.a.
Hardness	Shore D	ASTM D 2240	55 - 60
Melting point	°C	DIN 53736	326
Operating temperature	°C		-200 / +260
Mass resistance	ΩX cm	DIN 53482	1011
Dielectric strength	KV/mm	DIN 53481	48
Dielectric constant	ɛr	DIN 53483	2,1

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POLYTETRAFLUOROETHYLENE / GLASS FIBER
PTFE + GF

GENERALITY

PTFE is reinforced with glass fibres, the percentage may vary between 5 and 40 b.w. The glass fibre improves the wear properties and also the deformation under load. Glass itself, has a rather poor resistance against alkalis and is easily attacked by hydrofluoric acid. The coefficient of friction is slightly increased and for this reason, graphite or molybdenum disulfide are sometimes added to compensate this negative effect.

The reported values are referred to 15% glass fibers reinforcement.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	kg/dm^3	DIN 53479	2,2
Water absorption	% by weight	ASTM D 570	0,005
Tensile strength	N/mm^2	DIN 53455	10 - 24
Compressive strength	N/mm^2	D965	6 - 7
Deformation strength	Kg/cm^2	D790	n.a.
Impact strength	Kg/cm^2	D256	n.a.
Hardness	Shore D	ASTM D 2240	60 - 65
Melting point	°C	DIN 53736	326
Operating temperature	°C		-200 / +260
Mass resistance	ΩX cm	DIN 53482	10^{16}
Dielectric strength	KV/mm	DIN 53481	48
Dielectric constant	ϵr	DIN 53483	2,1

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POLYTETRAFLUOROETHYLENE / BRONZE
PTFE + BR

GENERALITY

Bronze is added in percentage of 40 and 60 b.w. Bronze filled PTFE has excellent wear properties, low deformation under load and good thermal and electrical conductivity. The chemical resistance is poor, especially in acidic environment.

The reported values are referred to 60% bronze reinforcement.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	kg/dm^3	DIN 53479	3,8 - 3,9
Water absorption	% by weight	ASTM D 570	0,005
Tensile strength	N/mm^2	DIN 53455	14 - 23
Compressive strength	N/mm^2	D965	10 - 11
Deformation strength	Kg/cm^2	D790	n.a.
Impact strength	Kg/cm^2	D256	n.a.
Hardness	Shore D	ASTM D 2240	65 - 70
Melting point	°C	DIN 53736	326
Operating temperature	°C		-200 / +260
Mass resistance	ΩX cm	DIN 53482	10^7 - 10^{10}
Dielectric strength	KV/mm	DIN 53481	48
Dielectric constant	ϵr	DIN 53483	2,1

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POLYAMIDE 6 PA6

GENERALITY

Polyamide 6 is a plastic material widely used in the field of mechanical construction for its characteristics of toughness, hardness, light weight, resistance to wear and to impact even at low temperatures. It has excellent dielectric properties and good chemical resistance organic and inorganic products and a good resistance to thermal aging. It has good machinability.

Available in stock in sheets, rods and, upon request, in sleeves. Versions added with molybdenum disulfide also available.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,14
Water absorption	% by weight	100%	3,5
Tensile strength	Kg/cm^2	D638	450
Compressive strength	Kg/cm^2	D659	900
Deformation strength	Kg/cm^2	D790	960
Impact strength	Kg/cm^2	D256	n.a.
Hardness Rockwell	Kg/cm^2	D1706	87
Modulus of elasticity	Kg/cm^2	D638	25000
Melting point	°C		215
Coefficient of thermal expansion	x °C		$110x10^{-6}$
Operating temperature	°c		100
Surface resistivity	Ohms		10^{-9}
Electric strength	Ohms/cm	D257	10^{10}
Dielectric constant		D150	8 - 25

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POLYETHYLENE HD 300
PE HD 300

GENERALITY

A plastic material with low specific weight and virtually no water absorption. It has excellent resistance to chemicals and wear and abrasion resistance properties with good impact resistance even at low temperatures. The main application areas are general engineering industry, canning industry, chemical industry, electroplating, cryogenic, textile etc.

Slabs are available in stock, rods upon request.

FEATURES	UNIT	Method ASTM	VALUE
Specific gravity	g/cm^3	53 479	0,95
Molecular weight	Mil. g/mol		>0,25
Humidity absorption	% by weight		0,005
Tensile strength	N/mm^2	53 455	22
Breaking strength	N/mm^2	53 455	32
Elongation at break	%	53 455	> 800
3,5% bending stress	N/mm^2	53 452	19
Impact strength	Mj/mm^2	53 453	no fracture
Hardness	Shore D	53 505	60
Operating temperature	°C		-50 / +60
Melting point	°C		130
Thermal conductivity	W / mxk	52 612	0,43

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POLYETHYLENE HD 1000
GREEN PE HD 1000

GENERALITY

A plastic material with low specific weight and virtually no water absorption. It has excellent resistance to chemicals and wear and abrasion resistance properties with good impact resistance even at low temperatures. The main application areas are general engineering industry, canning industry, chemical industry, electroplating, cryogenic, textile etc.

Slabs are available in stock, rods upon request.

FEATURES	UNIT	Method ASTM	VALUE
Specific gravity	Kg/dm^3	53 479	0,93
Molecular weight	Mil. g/mol		4-8
Humidity absorption	% by weight		0,005
Tensile strength	N/mm^2	53 455	> 20
Breaking strength	N/mm^2	53 455	> 40
Elongation at break	%	53 455	> 350
3,5% bending stress	N/mm^2	53 452	20
Impact strength	Mj/mm^2	53 453	no fracture
Hardness	Shore D	53 505	63
Operating temperature	°C		-50 / +70
Melting point	°C		135
Thermal conductivity	W / mxk	52 612	0,41

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POLYPROPYLENE PP

GENERALITY

This thermoplastic is part of the group of polyolefins and has excellent physical characteristics, thermal and chemical properties, while the mechanical values are lower than those of polyamides. It has high surface hardness and abrasion resistance. The impact resistance is excellent, except that at low temperatures. The chemical resistance is outstanding; It is attached by only a few highly oxidizing reagents, and for this reason is widely used in chemical industries and galvanoplastiche. The excellent dielectric properties make it very suitable for use even in the electronics, radio and television. It has the lowest specific weight among plastic materials; almost no absorption of moisture and thus good dimensional stability.

Available upon request.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	0,9
Water absorption	% by weight	100%	0,2
Tensile strength	Kg/cm^2	D638	300
Compressive strength	Kg/cm^2	D659	1100
Deformation strength	Kg/cm^2	D790	430
Impact strength	Kg/cm^2	D256	10 - 15
Hardness Rockwell	Kg/cm^2	D1706	80
Modulus of elasticity	Kg/cm^2	D638	13000
Melting point	°C		164
Coefficient of thermal expansion	x °C		$110x10^{-6}$
Operating temperature	°c		110
Surface resistivity	Ohms		10^{13}
Electric strength	Ohms/cm	D257	10^{16}
Dielectric constant		D150	2,3

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POLYVINYLCHLORIDE PVC

GENERALITY

It' a very hard plastic material, has excellent dielectric properties, good mechanical strength values and high resistance to chemicals, also in the presence of oxidants. Should not be used with temperature higher than 60°C. It can be welded or glued. Particularly used in the chemical and electroplating, for reaction tanks, bodies for filters, fans, in the mechanical, electrical, building and furnishings.

Available in slabs and rods.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,45
Water absorption	% by weight	100%	0,05
Tensile strength	Kg/cm^2	D638	190
Compressive strength	Kg/cm^2	D659	750
Deformation strength	Kg/cm^2	D790	900
Impact strength	Kg/cm^2	D256	7
Hardness Rockwell	Kg/cm^2	D1706	110
Modulus of elasticity	Kg/cm^2	D638	35×10^{13}
Melting point	°C		86 - 90
Coefficient of thermal expansion	x °C		$66x10^{-6}$
Operating temperature	°c		70
Surface resistivity	Ohms		n.a.
Electric strength	KV/mm		n.a.
Dielectric constant		D150	3,4

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ACETAL COPOLYMER POM C

GENERALITY

POM is a polyacetal resin and is presented as a very crystalline and rigid plastic material, used in the replacement of metal and in the execution of various mechanical parts where is necessary to have high tensile strength, resistance to alternate flexions and fatigue; high modulus of elasticity, hardness, toughness and resilience, both at high and at low temperatures, excellent resistance to plastic creep and thus considerable elasticity, minimum water absorption, high dimensional stability, low coefficient of friction, wear resistance, excellent resistance to corrosion and to organic solvents, excellent dielectric properties, excellent machinability.

Rods are available in stock, slabs upon request.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,42
Water absorption	% by weight	100%	0,2
Tensile strength	Kg/cm^2	D638	700
Compressive strength	Kg/cm^2	D659	1100
Deformation strength	Kg/cm^2	D790	991
Impact strength	Kg/cm^2	D256	6,1
Hardness Rockwell	Kg/cm^2	D1706	118
Modulus of elasticity	Kg/cm^2	D638	30000
Melting point	°C		175
Coefficient of thermal expansion	x °C		$81x10^{-6}$
Operating temperature	°c		100
Surface resistivity	Ohms		1014
Electric strength	KV/mm		24
Dielectric constant		D150	3,7

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BAKELITE

GENERALITY

Multy layer plastic material obtained with components of pure cotton fabric appropriately treated with phenolic thermosetting resins. It has high mechanical characteristics and discrete electrical features. Easy to be machined in order to obtain parts for the following applications: electromechanical, electrical engineering, mechanical.

Available in slabs.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,36
Water absorption	% by weight	100%	2
Tensile strength	Kg/cm^2	D638	1450
Compressive strength	Kg/cm^2	D659	3400
Deformation strength	Kg/cm^2	D790	1700
Impact strength	Kg/cm^2	D256	30
Hardness Rockwell	Kg/cm^2	D1706	60
Modulus of elasticity	Kg/cm^2		n.a.
Melting point	°C		190
Coefficient of thermal expansion	x °C		n.a.
Operating temperature	°c		120
Surface resistivity	Ohms		10^7
Electric strength	KV/mm		n.a.
Dielectric constant		D150	n.a.

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TESSIT

GENERALITY

Product made of pure cotton fabric and phenolic resins; It has excellent mechanical and dielectric characteristics. Suitable for the construction of large silent gears, bearings, bearing elements, as well as for low voltage equipment and in oil.
Excellent machinability.

Available in slabs and rods.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,35
Water absorption	% by weight	100%	0,35
Tensile strength	Kg/cm^2	D638	650
Compressive strength	Kg/cm^2	D659	2700
Deformation strength	Kg/cm^2	D790	1300
Impact strength	Kg/cm^2	D256	25
Hardness Rockwell	Kg/cm^2	D1706	60
Modulus of elasticity	Kg/cm^2		n.a.
Melting point	°C		190
Coefficient of thermal expansion	x °C		n.a.
Operating temperature	°c		120
Surface resistivity	Ohms		10^7
Electric strength	KV/mm		n.a.
Dielectric constant		D150	n.a.

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SICOGLASS - METHACRYLATE

GENERALITY

It's a transparent plastic material widely used in shipbuilding, mechanical engineering and construction. Main technical features are the high transparency (92 % light transmission of transparent plates), high impact resistance, excellent resistance to weathering, UV protection, sound absorption and thermal insulation, ease of processing and thermoforming.

Available in slabs and canes.

FEATURES	UNIT	Method ASTM	VALUE
Specific Weight	Kg/dm^3	D792	1,2
Water absorption	% by weight	100%	0,2
Tensile strength	Kg/cm^2	D638	560
Compressive strength	Kg/cm^2	D659	750
Deformation strength	Kg/cm^2	D790	820
Impact strength	Kg/cm^2	D256	4
Hardness Rockwell	Kg/cm^2	D1706	92
Modulus of elasticity	Kg/cm^2		40000
Melting point	°C		190
Coefficient of thermal expansion	x °C		$150x10^{-6}$
Operating temperature	°c		90
Surface resistivity	Ohms		10^{14}
Electric strength	KV/mm		n.a.
Dielectric constant		D150	3

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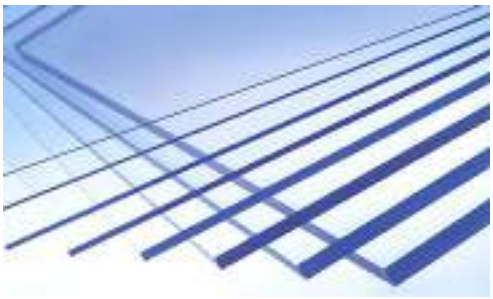
SOLID POLYCARBONATE SHEETS UVP



GENERALITY

Polycarbonate solid sheets have excellent mechanical, thermal and electrical properties, and also a high impact-resistance and a considerable flexibility, they are almost unbreakable and thermostable within a temperature range between -40 °C and +135 °C.

The sheets are UV protected on the both sides and are manufactured, through coextrusion, applying UV protecting lining to the same sheet. This process keeps unchanged the sheet main properties, such as trasparency and brightness, making them particularly suitable for external use.

APPLICATIONS

Polycarbonate solid sheets find application in the most different sectors, such as building and architecture, for the construction of barriers, guards and in the industry field to manufacture safety coverings, protective screens, antisound barriers.

CHEMICAL COMPATIBILITY

the polycarbonate solid sheets resist to mineral acids in high concentrations, to a lot of organic, oxidatives and reducing acids, to acid and to neutral saline solutions, some greases and oils, alcohol (except methylic) and aliphatic hydrocarbons. They are not compatible with alcalinic solutions, gaseous ammonia and amines, they can be etched by a lot of solvents. The organic compounds such as benzol, acetone and carbon tetrachloride cause the swelling of the sheets.

PVC KRISTALL

Trasparent extruded PVC, available in sheets and stripes.
It is used in flexible door manufacture.
Transparent and easy to apply, It is suitable to create barriers that isolate the local thermally and acoustically.

STRIPES	
5509.2520	200x2 - L=50 mt - 0,6 Kg/mt
5509.2530	300x3 - L=50 mt - 1,1 Kg/mt
5509.2540	400x4 - L=50 mt - 2,0 Kg/mt

ROLLS	
5509.2020	Sp 2 - MT 20x1 - 2,6 Kg/mq
5509.2030	Sp 3 - MT 20x1 - 3,9 Kg/mq
5509.2040	Sp 4 - MT 20x1 - 5,2 Kg/mq
5509.2040/1	Sp 4 - MT 20x1,3 - 5,2 Kg/mq

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Note

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