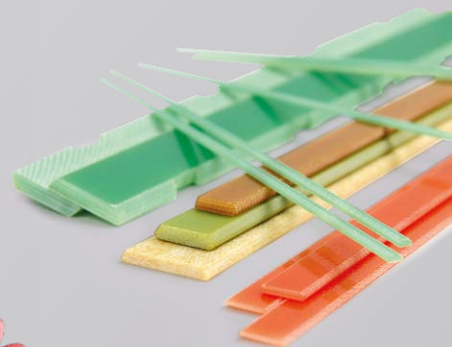
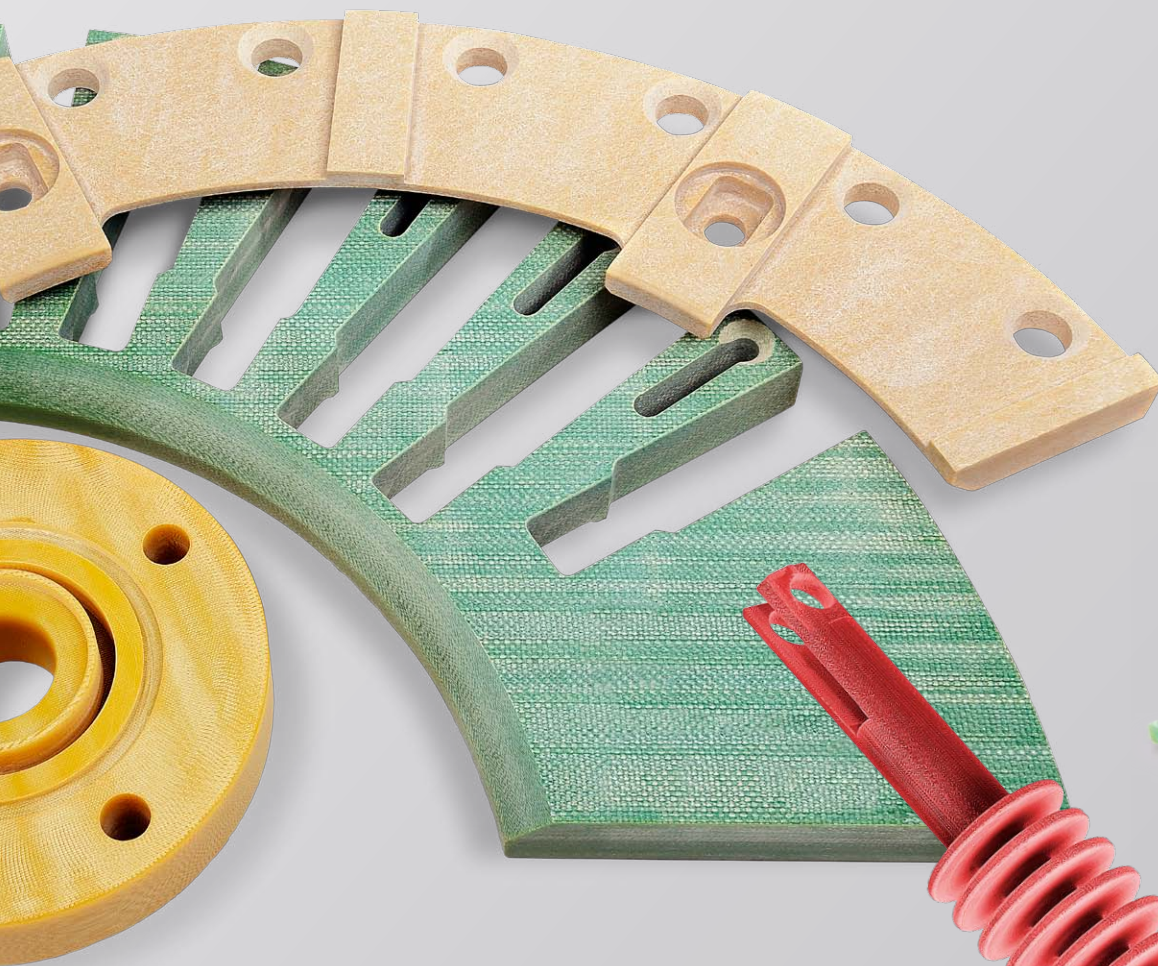
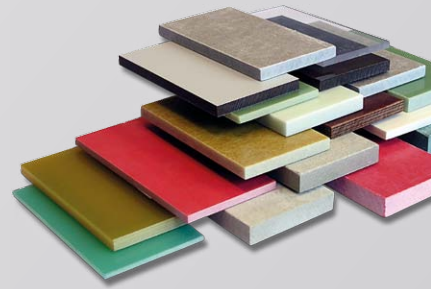




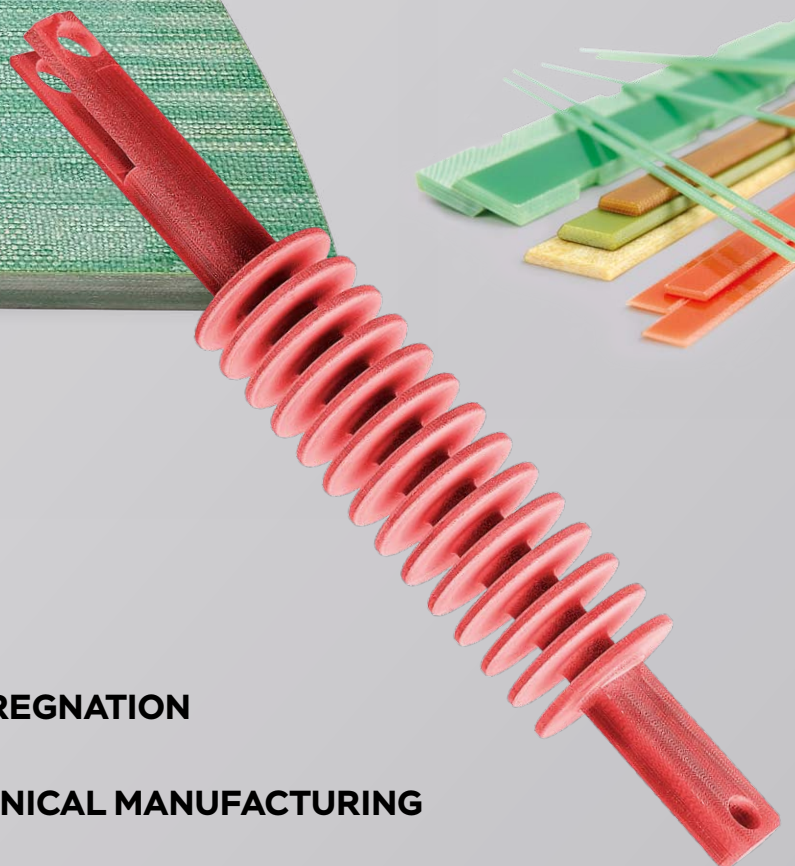
**ENGINEERING PLASTICS
FOR ELECTRICAL INSULATION,
MECHANICAL AND SPECIAL APPLICATIONS**



MACHINED PARTS FROM

- Fibre-reinforced plastic sheets
- Heat-resistant materials
- Thermoplastics

**FLEXIBLE INSULATION AND IMPREGNATION
FOR ELECTRICAL WINDINGS
MATERIALS FOR ELECTRO-TECHNICAL MANUFACTURING**



ABOUT OUR COMPANY

The company Jan Turek ARCO technik was founded in 1991 as a private company focused on the wholesale of materials for electro-technical manufacturing.

Since 1993 ARCO technik has specialised in machining composite plastics and selected thermoplastics for electrical insulation and mechanical applications. Concurrently trading in raw materials for the manufacture and repair of electrical machinery, devices and transportation equipment.

WE ARE CONSTANTLY EXPANDING OUR PRODUCTION CAPACITY AND INNOVATING TECHNOLOGY

1994 – Start of production in rented premises.

1996 – Purchase of premises at Prague 10-Dolní Měcholupy. 1996–1997 saw the remodelling of the production halls and procurement of technical and machining equipment.

1996 – Establishment of subsidiary company ARCO technik s.r.o., focusing on the production of custom parts according to customer's drawings.

2003 – Certification according to ISO 9001:2001.

2007 – Expansion of the new warehouse and office buildings with floor area of 1300m² and the expansion of production in the original building.

2007–2014 – Continuing investment in new CNC machining equipment and other technology.

2015 – Acquisition of three CNC machining centres and upgrade of the information system for monitoring and optimization of manufacturing processes, logistics and procurement.



WE OPERATE ON THE CZECH AND INTERNATIONAL MARKETS

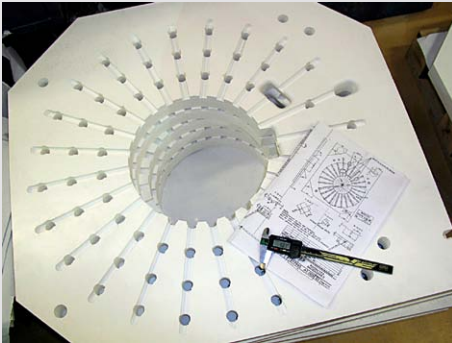
Currently, ARCO technik s.r.o. has 53 employees, of which 40 work in production. Operating on the Czech and European market and expanding export activities to European countries and overseas. Simultaneously realising the import of special materials for production and business activities.

ARCO technik s.r.o. continually presents professionally to the public, both in the Czech Republic – as part of the Amper trade fair and abroad, where we presented, for example, at the trade fairs – International Trade Fair for Plastics & Rubber in Düsseldorf or CWIEME – Coil Winding Berlin.



PRODUCTION PROGRAM

We specialise in machining parts from fibre-reinforced plastic sheets, heat-resistant materials and selected thermoplastics which we process according to the customer's drawings.



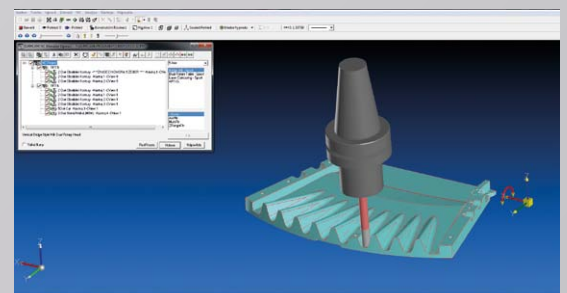
EQUIPMENT AND QUALITY

- CNC machining and cutting of plastics in quality according to the terms of ISO 9001
- Precision cutting on automatic saws up to 100mm thick
- Grinding and calibration of thickness with 0.1mm accuracy
- Milling from three to five independently controlled axes with rotating and tilting tables
- Turning, including parts with eccentric slots (head with driven tooling)
- Surface finish of parts and cut surfaces (protection with varnish impregnation)
- Machined plastic parts with threaded metal inserts
- Marking and printing of parts
- Gluing assemblies from segments



CAD/CAM SYSTEMS INCREASE OUR EFFICIENCY

We use the latest software – CAD/CAM systems that allow us to work flexibly.



WE PRODUCE THE MACHINED PARTS FROM THESE MATERIALS

Laminated paper, cotton fabric, compressed wood laminate

- **Laminated paper** (HP 2061 PF CP201)
- **High-pressure laminate HPL** – compact boards suitable e.g. for the construction and switchgear panels and a variety of electrical insulation and mechanical applications, fixtures, workplaces in the Health Care or Food industries, or as an alternative to laminated paper with improved electrical insulation properties,
- **Cotton laminated sheets** (HGW 2082, PF CC 201) primarily for mechanical applications
- **Compressed wood** – sheets, rounds with M threads and nuts e.g. for the construction of oil transformers,
- Type H compressed wood with vacuum impregnation for mechanical applications (workshop fixtures, gears, bushings).

Fibreglass fabric with epoxy resin

(G10, G11 HGW 2372.4, FR 4, EP GC 203 for temperature class F, H, fibreglass)

Fibreglass mat

- With polyester resin DCGM 202 UP GM 203 (GPO 3) DCGM 204, 205 DCGM, HM 2471 HM 2472
- with epoxy resin EPGM 203

Composites with polyester-based resin are alternatives for the epoxy resins. Selected types meet self-extinguishing in class V0, resistance to electrical arcing, tracking resistance – CTI 600, exhibit excellent electrical properties and thermal stability in classes F and H and meet the requirements of the standard EN 45545-2.

Heat-resistant materials for special applications

Materials having electrical insulation properties and thermal stability, e.g. Armikanit 500 – material based on mica and silicon resin with the heat resistance to 500 °C. Armikanit Phlogopite has a heat resistance of 750 °C, short term up to 1000 °C.

Materials resistant to electric arc

Sindanyo and Arclex are asbestos-free materials with arc resistance for the arc chutes of contactors and electrical switchgear.

Thermal insulating sheets

Precisely calibrated, pressure-resistant sheets ensure the separation of heated and unheated parts of injection moulding machines for plastics processing. They are made from Armatherm LT, Armatherm HT and Glaththerm (heat resistant up to 200/300 °C).

Materials for wave soldering masking frames (solder pallet materials)

Thermoplastics and other materials for electrical insulation and mechanical applications

Teflon, alkali polyamide (PA6), Nylon, PMMA (plexiglass), polycarbonate (PC) (Makrolon, Lexan). Polycarbonate (PC) sheets are used in instrumentation and switchgear equipment for production of covers (transparency, electrical properties, cold-bending properties).

Materials for ballistic protection

We machine composites based on carbon fiber and other specialty plastics supplied by the customer.



Temperature			80	100	120		130	155		180		200	230	250	500	600	700	750
Material	Material	Material	PE-UHMW	POM-C/PA-6/ PA6-G/PA66	PA66-GF30	Polycarbonat (PC)		UPM 203 (UPM 70S, UPM71S)		EPM 203	ARMATHERM 200HT Glastherm	PTFE		PEEK-1000	ARMICANIT M			
				Lignostone L II/2 E3	HP 2061, HP2061,5		AR-Hgw 2372.1	AR-Hgw 2372.4	UPM S1	AJ-Hgw 2372.4 Class H	Hgw 2572	ARMATHERM HT LC	Sindanyo L 26		Arclex M			
				Lignostone H II/2E3	Hgw 2082 (textit J)	Hgw 2082.5 (textit E)	AR - Hgw 2372	EPGC 204	UPM S 2 (UPM 204R)	AR-Hgw 2372.4 Class H	EPC 205	AR-Hgw 2372.4 type 200/250	Sindanyo L 23	ARMATHERM 250 HT	ARMACEM 506	ARMACEM 600	Sindanyo H 91	ARMICANIT P

SEEKING OPTIMAL SOLUTIONS TOGETHER WITH CUSTOMER

To optimize the technical properties of the product and the price for you, we propose alternative materials and design solutions.

DOCUMENTS FOR QUOTES

We need your input:

- Drawing or data in .dwg or .dxf
- Preferably model in .stp or .iges format.



Glass mat/polyester sheets										
19	UPM 203 / UPM 70S, UPM71S/	Glass mat	HM 2471	UP GM 203	GPO - 3	155 °C	White/red	Comparative tracking index Flammability	IEC 60112 IEC 60707	CTI 600 FV0>3 mm
20	UPM S1	Glass mat	HM 2472	-	-	155 °C	Beige	Compressive strength perpendicular to laminations	ISO 604	400MPa
21	UPM S 2 / UPM 204R	Glass mat/fabric	HM 2472	UP GM 205		155 °C	White	Comparative tracking index	IEC 60112	CTI 600
Glass fabric/silicone sheets										
22	Hgw 2572	Glass fabric	Hgw 2572	SI GC 202	G 7	180 °C	White	Comparative tracking index Flammability	IEC 60112 UL 94	CTI 450 VO
Sheets for thermoinsulation and for special application										
23	ARMATHERM HT LC Glastherm	Glass mat				200 °C	Beige	Modul of elasticity Compressive strength (perpendicular) Thermal conductivity	ISO 178 ISO 604 -----	10000N/mm ² 125 N/mm ² .0,18W/m.K
24	ARMATHERM 200 HT Glastherm	Glass mat				200 °C	Green	Compressive strength (perpendicular) Thermal conductivity	ISO 178 ISO 604	330MPa 0,27W/m.K
25	ARMATHERM 250 HT Glastherm	Glass mat				250 °C	Light green	Compressive strength perpendic. 23 °C Compressive strength perpendic. 200 °C Thermal conductivity	ISO 604 ISO 604	600MPa 450MPa
26	ARMACEM 506	Special cement reinforced with inorganic fibres				500 °C/ short-term 750 °C	Gray	Compres.strength perpendic. to laminations Electric strenght	ISO 604 IEC 243	120 N/mm ² 2,4kV/1mm
27	ARMACEM 600	Calcium/silicate				500 °C/ short-term 700 °C	Gray	Tracking resistance Compressive strength Thermal conductivity	IEC 112 ISO 604 DIN 52612	CTI 500 75 N/mm ² 0,649W/m.K
28	Sindanyo L 23	Special cement and admixtures reinforced with unclassified fibres				230 °C/ short-term 250 °C	Gray	Compressive strength Thermal conductivity	ISO 604 DIN 52612	85N/mm ² 0,5W/m.K
29	Sindanyo L 26					230 °C, short-term 250 °C	Gray	Low water consumption		1%
30	Sindanyo H 91					max 700 °C	Gray	Good thermal resistance		
31	Arclex M	glass bonded mica				500 °C	Gray	Electric strength/90 °C		40kV/mm
Mica / Silicone resin										
32	ARMICANIT M	Muscovite Mica/ Silicone resin				500 °C/ short-term 700 °C	Gray	Flammability	UL94	Class VO
33	ARMICANIT P	Phlogopite Mica/ silicone resin				700 °C/ short-term 1000 °C	Brown	Flammability	UL94	Class VO
Thermoplastic Materials										
34	Plexiglas	PMMA / acrylopolymer				max 70 °C	Transparent	Mechanical applications		
35	Makrolon / Lexan	Polycarbonat				max. 120 °C	Transparent	Flammability cold formable	DIN 4102	Stufe B2
36	POLYAMIDE PA6,PA6 G	Polyamide				100 °C	White	Flammability	UL 94	HB
Other Materials optional										
Datasheets optional							Datasheets on request			

The data mentioned in this brochure are average values. We cannot accept any responsibility for their accuracy.

May 2016

TYPICAL USES OF OUR PRODUCTS

Electrical Engineering, Energy

Electrical insulation and electro-mechanical parts for stationary and rotating machines;

Wedges (slot closures) for stator and rotor windings of electrical machines, parts for electrical equipment, switchgear, transformers, substations, etc.;

Transportation engineering

Electrical insulating parts for electric equipment of traction vehicles, arc chutes of contactors, parts for the electronics of traction vehicles, mechanical and sliding parts, HPL boards for passenger transport vehicle interiors and also special components;

Engineering fields

Non-metallic mechanical parts for machines and devices: structural and sliding, fixtures, prototypes, models;

Plastics processing

Thermal insulating sheets for plastics processing moulds;

Chemical

Special mechanical parts, threaded rods and structural elements;

Microelectronics

Materials for wave soldering equipment;

Food and Health Industries

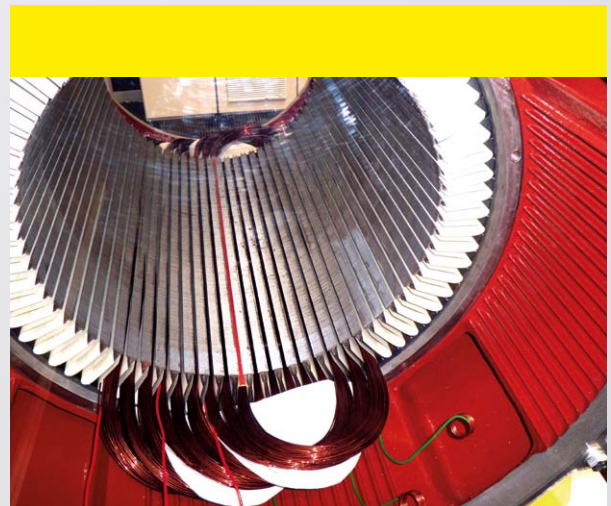
Handling pallets, mechanical parts for conveyors, packaging machines, components for diagnostic and therapeutic devices, special furniture;

Ballistic protection

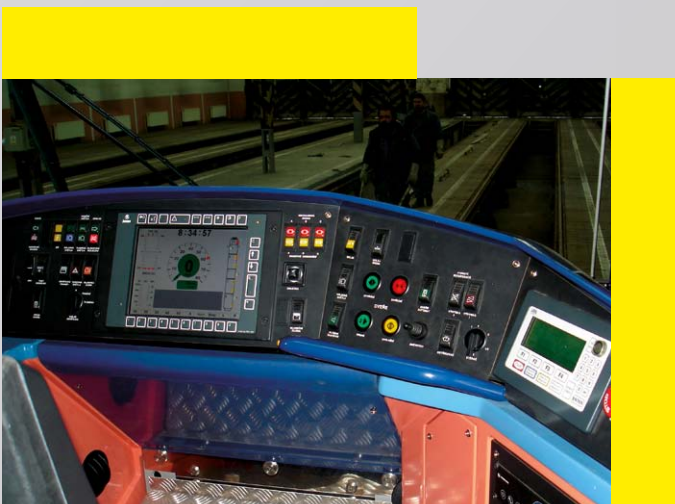
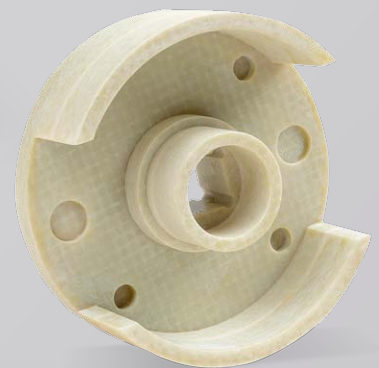
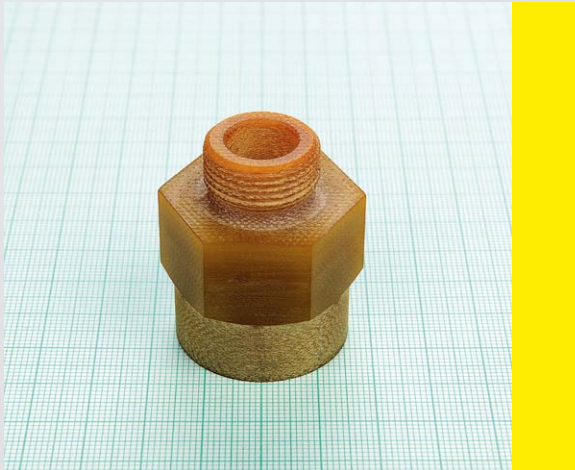
Fibre-reinforced composites and wood-based materials;

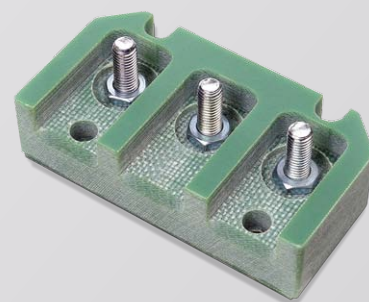
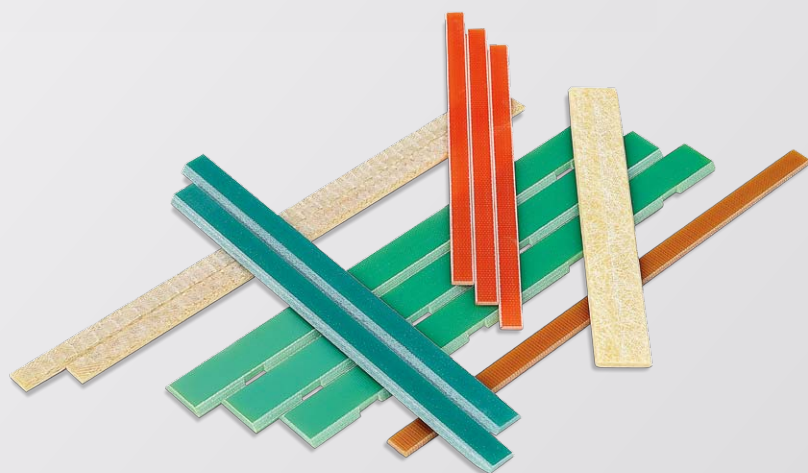
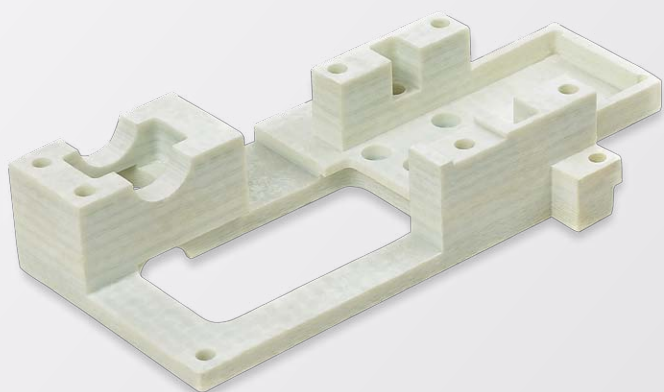
Other fields

where it is possible to use electro-mechanical and thermal properties of materials;



PRODUCTS DEMONSTRATION







STOCKED MATERIALS

- Sheets from the range of machined materials
- Wound tubes and cylinders (round, profiles) made of hardened paper, cotton or glass cloth
- Wound rods from hardened cotton or glass cloth
- Threaded rods "M" – graded bolts and nuts, fibreglass-reinforced composites for electrical insulation and structural applications
- Pultruded composite profiles – flat or cross-section O, U, I, L, etc. fibreglass-reinforced with epoxy or polyester-based resin. We also offer many other stock and custom profiles.
- Flexible electrical insulating materials for electric windings and other uses – for application in rotating and non-rotating electrical machines and the installation of electrical devices. We supply materials for VPI insulation systems and Resin Rich (slot insulation, banding tape, fibreglass, PET film, Nomex, fibreglass and polyester tapes, mica and pre-preg materials, electrical insulating tubes).
- Impregnation varnishes and resins for secondary insulation company ELANTAS
We offer a wide range of impregnating varnishes, resins and potting compounds for electrical applications and electronics.

For more information, please see our data sheets, materials samples available upon agreement.



Your partner in machining of plastic parts



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