



UralActiv

manufacturer of products from polypropylene



LABORATORY FURNITURE

Version 4 – 11/2016

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• Laboratory furniture

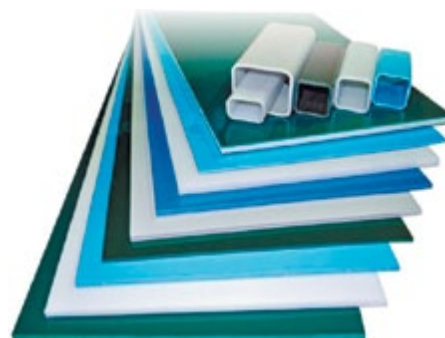
Introduction

The company UralActiv Ltd. supplies laboratory furniture. We use the most advanced and chemical-resistant material – polypropylene. Due to great properties of polypropylene our furniture for laboratories are used in many industry areas where the chemical resistance, corrosion resistance, leak resistance, economical efficiency, light weight, long service life and environmental compatibility are necessary

UralActiv Ltd. manufactures products in accordance with technical specification TY 2291-001-95801889-2015.

Scope of application:

- Laboratories of light industry;
- Chemical industry;
- Medical centers;
- Clear rooms;
- Surface working (etching, galvanic process);
- Production of chlorine.



One of the main advantages of thermoplastic material as compared to metallic systems with the same properties is the relative low cost; it gives more economical efficiency together with the long service life.

The main material used in products – grey polypropylene. On special order other types of materials are available.

RAL 9003

RAL 7032

RAL 5012

RAL 5015

RAL 6005

Available types of plastic:

made in Russia

Abbreviation	Designation	Temperature range, °C	
PP-BC (ПП-БС)	polypropylene block copolymer	-40...+80	Default basic material
PP-H (ПП-Г)	polypropylene homopolymer	-5...+105	
HDPE (ПНД)	polyethylene	-50...+80	

made in Germany

Abbreviation	Designation	Temperature range, °C	
PVC	polyvinylchloride	0...+60	
PVDF	polyvinylidene fluoride	-30...+140	
PPs	flame-resistant polypropylene	0...+100	
PP-EL-s	electrically conductive, flame-resistant polypropylene	0...+80	

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Specifications of thermoplastics

The customer and/or design company choice the type of thermoplastics according to the temperature, composition and concentration of the media based on data from the table of chemical resistance thermoplastics and operation experience.

The main properties of polypropylene:

- Low density. The density of homogeneous (monolithic) polypropylene sheet – 0.92 g/cc. The density of our composite sheets and plates from light polypropylene can be 0.7 g/cc.
- High strength of material. The constructions of polypropylene can be more solid then constructions of steel with the same weight. The strength of polypropylene sheets is in 3-4 times higher by the static load then the strength of polyethylene.
- Frost-resistance. The sheets of block copolymer polypropylene can be used by the temperature to – 40° C.
- Chemical resistance in aggressive mediums. It is used in organic and inorganic concentrated and diluted acids.
- The material is safe for human health. The sheets and plates of polypropylene can be used in production of reservoir for drinking water, swimming pools, in food industry. The polypropylene sheets are widely used in production of treatment facilities. All our products from polypropylene have Sanitary-Epidemiological Conclusion Certificate.
- It is ease to undergo the mechanical processing. It can be compared with the easy processing of wood.
- Simple and safety welding of polypropylene sheets.
- Good dielectric properties.

Characteristics of monolithic (homogeneous) sheets made from block copolymer polypropylene

Main properties	Value	Measuring unit	Testing method ISO
Unit weight, density	0.9-0.92	g/cc	1183
Tensile stress by fluidity (tensile yield stress)	23	MPa	527-1/1B/20
Elongation at break	260	%	527
Unnotched Charpy impact resistance value at 23 °C	n/ breakage	kJ/m ²	179/1fU
Notched Charpy impact resistance value at 23 °C (on arris of sample)	50	kJ/m ²	179/1epA
Notched Charpy impact resistance value at -40 °C (on arris of sample)	7	kJ/m ²	179/1epA
Modulus of flexure	1150	MPa	178
Temperature of bending under load 1.8 MPa	55	°C	75-2Ae
Temperature of bending under load 0.45 MPa	115	°C	75-2Be
Vicat softening temperature (50H/50 °C)	80	°C	306/B50
Shore hardness	68		868

Values above are the average values of statistical report and analysis. Data are intended only for information and should not be considered as obligatory (if it is not indicated in sale and purchase contract).

*) data from literature.

**) depend on pressure and environment.

Fume hoods UA-PP-SHV

Fume hood is intended for laboratories to ensure the staff protection during the processing of wide range of chemical hazardous substances, with their effective exhaust out from the working area; to carry out chemical-analytical investigations of materials regarding the appearance and spreading of harmful for human toxic steam and gases. Fume hoods can be used in conditions of constant humidity.

Fume hoods are manufactured from chemical-resistant material – polypropylene. The constriction of fume hoods consists from 2 main parts: upper part – working chamber, lower part – working stand or supporting frame. The design of hood from PP provides adjustable bearings. Working chamber can be equipped with lifting screen. Working stands can have exhaust system. Optional the PP fume hoods can be equipped with the tap for water or gas, with luminescent lamps, bucket sinks, sockets, switches, trays for chemical agents (cuvettes) etc.

Integrated stands are suitable for storage of chemical reagents (acids, alkalis). If the fume hood has a sink the stand is provided with technological module for water trap servicing and for storage of accessory materials. Working stands can have exhaust system (both depending on air movement inside the chamber and independent).

Attention – we can produce fume hood based on your specifications or on standard parameters.



As standard parameters are offered following dimensions of fume hoods:

Width, mm	900	1000	1200	1500	1800	Dimensions at your request
Depth, mm	700/900	700/900	700/900	700/900	700/900	
Height, mm	1800/2200	1800/2200	1800/2200	1800/2200	1800/2200	

Labeling for order: UA-PP-SHV – WIDTH x DEPTH x HEIGHT – TYPE

Example: UA-PP-SHV-1200x700x2200 – Type 5

Base variants of hoods

Open fume hood on steel frame	Open fume hood on steel frame with sink
	
Type1	Type 2

• Laboratory furniture

Closed fume hood of steel frame



Type 3

Closed fume hood of steel frame with sink



Type 4

Fume hood on polypropylene frame



Type 5

Fume hood on polypropylene frame with optional exhaust out of stands



Type 6

Fume hood – demo version



Type 7

Tables UA-PP-CT

Chemical-resistant laboratory tables are widely used both in paper industry, and for complicate research activities with different chemical materials.

Plastic tables are produced from chemical-resistant thermoplastic materials, for example from polypropylene. Tables can have different design. The frame of table is section polypropylene. The table can be equipped with technological additional elements, shelves, integrated or movable stands, sockets, lights and others.

PP table can be provided with roller supports. This table is mainly intended for arrangement and movement of laboratory equipment, devices, tools, labware etc. The tabletop is made from polypropylene, can be provided with protecting from spilling collars and with handles to enable easy and safety movements. Also the tabletop from PP can be used as cutting boards at public catering enterprise. It is water-resistant, has high mechanical strength as compared to polyethylene or wood.

Attention – we can produce table based on your specifications or on standard parameters.

As standard parameters are offered following dimensions of tables:

Width, mm	500	800	900	1000	1200	1500	1800	Dimensions at your request
Depth, mm	600/800	600/800	600/800	600/800	600/800	600/800	600/800	
Height, mm	800/900	800/900	800/900	800/900	800/900	800/900	800/900	

Labeling for order: UA-PP-ST-WIDTH x DEPTH x HEIGHT – TYPE

Example: UA-PP-ST-800x600x900 – Type 1

Base variants of tables

Laboratory table



Type 1

Movable table



Type 2

Wall-mounted chemical table



Type 3

Wall-mounted table with integrated stand



Type 4

Wall-mounted chemical table with 2 rolling stands



Type 5

Tables for surface treatment UA-PP-SPO

Tables for surface treatment of connectors are intended for placement of galvanic baths with covering processing, rinse baths, ultrasound baths, power suppliers etc. Tables are made from chemical-resistant plastic – polypropylene. The PP washing tables are provided with connecting pipes for exhausting of aggressive materials out from the working area.

Attention – we can produce table based on your specifications

Labeling for order:

UA-PP-SPO–Dimensions (WDH) – quantity of baths – dimensions of a bath

Example: UA-PP-SPO – 1800x800x1500 – 4 – 300x500x400



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Stands UA-PP-TP

Stands are manufactured from plastic sheets – polypropylene. PP stands are sold as separate product or as a part of specification on table or fume hood for acid processing. It is possible to produce polypropylene stand with exhaust flange for connecting to the ventilation. The stand cover can have collars to protect from chemicals spilling. There are no corrosive parts in this furniture. Rolling support enables easy movement of stand.

Attention – we can produce stand based on your specifications!


As standard parameters are offered following dimensions of stands:

Width, mm	400	500	600	800	1000	Dimensions at your request
Depth, mm	300/500	300/500	300/500	300/500	300/500	
Height, mm	450/650/800	450/650/800	450/650/800	450/650/800	450/650/800	

Labeling for order: UA-PP-TP-WIDTH x DEPTH x HEIGHT – TYPE

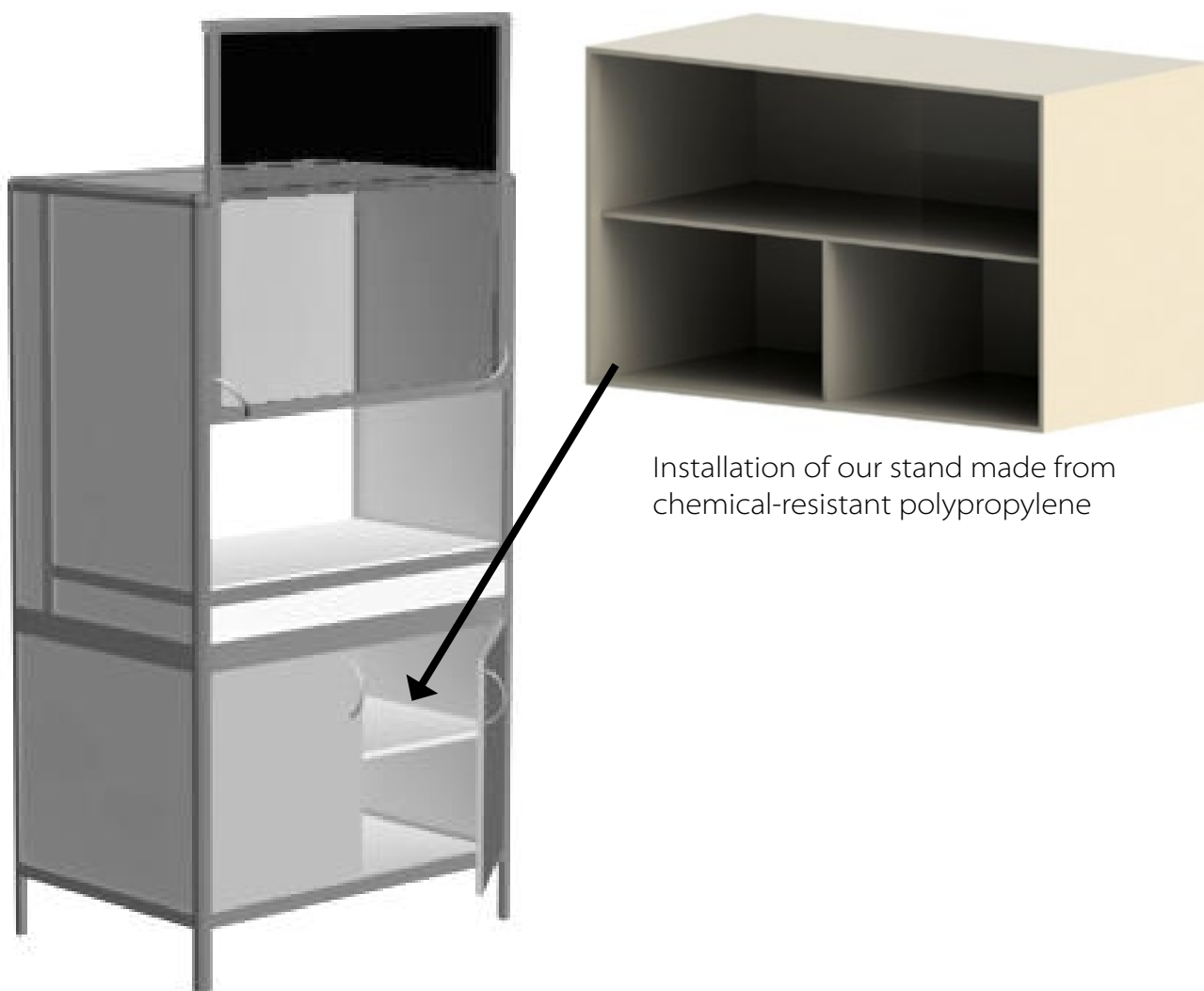
Example: UA-PP-TP-600x500x650 – Type 4

There are following variants for production of stands:

Rolling stand with sliding doors	Stand with removable shelves
	
Type 1	Type 2
Suspended stand for storage of acids	Rolling stand with swing door
	
Type 3	Type 4

Stand for fume hood UA-PP-Tshv

This kind of stand is intended for installation in the existing stands of fume hood or in the storage cabinet, if it is necessary to store chemical agents (acids, alkalis etc.). Dimensions of stand are determined by customer.



Installation of our stand made from chemical-resistant polypropylene

Your fume hood with the stand from chemically unstable material,

Labeling for order: UA-PP-Tshv-WIDTH x DEPTH x HEIGHT
Example: UA-PP-Tshv-1000x500x600

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Sinks UA-PP-M

Sinks, wash tables, stands with sinks are used in laboratories, medical centers, public catering enterprise etc. for washing of wares.

Sinks are made from polypropylene and have high resistance to corrosion. They are supplied as assembled unit on adjustable supports and are equipped with water drainage. It is possible to produce collar or screen for protection from splashes and other products on customer's drawings.



Attention – we can produce a sink based on your specifications!

As standard parameters are offered following dimensions of sinks:

Width, mm	500	600	800	1000	1200	1500	Dimensions at your request
Depth, mm	600/700/800	600/700/800	600/700/800	600/700/800	600/700/800	600/700/800	
Height, mm	900	900	900	900	900	900	

Labeling for order: UA-PP-M-WIDTH x DEPTH x HEIGHT – TYPE
Example: UA-PP-M-600x500x650 – Type 1

There are following variants for production of sinks:

Washing table for laboratory	Laboratory stand with sink
	
Type 1	Type 2

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Laboratory stand with 2 sinks, splash-proof screens and drier installation



This stand combines function of drying shelf for laboratory accessories (flasks, glasses), back screen and two side screens protect from splashes. There are technological sections for servicing of water trap inside the stand.

Type 3

Bath for washing of animals



Bath for washing of animals is made from polypropylene and is used in animal clinics and in private sector etc. For example, it can be used as a bath for washing of dogs. Plastic bath for animals are provided with mixer-trap and shower head on it, with drainage and corrugated pipe. Washing bath has a height-adjustable grating.

Type 4

Cabinets and lines of shelves UA-PP-SHS

Our company produces cabinets and shelves for different purposes. Cabinets for chemical agents are made from polypropylene with high chemical resistance to acids and alkalis. Chemical-resistant laboratory cabinets are provided with blind panel and connecting pipe for attachment to the exhaust system of ventilation. It enables the drawing out from all shelves.

Polypropylene laboratory cabinets and lines of shelves are intended for storage of laboratory equipment, devices, tools, labware, aggressive chemical agents, consumables, documents etc. Every cabinet can be equipped with optional pull-out trays (cuvettes).

Cabinets and lines of shelves from thermoplastic materials are fixed on adjustable supports to compensate the floor unevenness.

Attention – we can produce cabinet or line of shelves based on your specifications or on standard parameters.

As standard parameters are offered following dimensions of:

Width, mm	500	600	800	1000	1200	1500	Dimensions at your request
Depth, mm	400/500/600	400/500/600	400/500/600	400/500/600	400/500/600	400/500/600	
Height, mm	1600/2000	1600/2000	1600/2000	1600/2000	1600/2000	1600/2000	

Labeling for order: UA-PP-SHS-WIDTH x DEPTH x HEIGHT – TYPE

Example: YA-PP-SHS-800x600x2000 – Type 3

Base variants of cabinets:

Cabinet for chemical agents, connected to the ventilation (with swing doors)	Cabinet for chemical agents, connected to the ventilation (with sliding doors)
	
Type 1	Type 2

• Laboratory furniture

Cabinet for laboratory



Type 3

Line of shelves with stand



Type 4

Line of shelves



Type 5

Line of shelves



Type 6

• Laboratory furniture

Components for furniture

Optional you can order following components and equipment for the furniture:

<p>Chemical-resistant laboratory taps and mixer-taps</p>			
<p>Household taps, gate valves</p>			<p>Lights</p> 
<p>Mains sockets</p>		<p>Switches</p>	
<p>Roller supports</p>			<p>Adjustable supports</p> 
<p>Trays (cuvettes) - are used to solve the problem with collecting of water, condensed water and other liquids as chemical-aggressive liquids. The scope of application of polymeric trays is wide and they can be provided with drain tube, chemical-resistant taps.</p>		<p>Polypropylene sinks</p>	
<p>Cutting boards from polypropylene</p>			

• Laboratory furniture

Drier installations from polypropylene

- for labware



Fan RVND-L-164

Basically the laboratory fans are intended for installation in ventilation hoods (exhaust fume hoods) to remove the chemical aggressive media. Also these fans can be used in galvanic industry. One from the advantages is a large range of aerodynamic characteristics of these fans: productivity 180-1600 m³/h, pressure 70-1100 Pa.

Laboratory radial fans are manufactured from chemical-resistant plastics: casing and working wheel made from polypropylene. Optional they can be made from other materials – polyethylene, PVC. Flexible chemical-resistant elements on the base on polypropylene and PVC are available in the construction of fan. More information you can find in our catalogue <http://www.uralactiv.ru/files/pdf/1474956235.pdf> or on web-site www.uralactiv.ru



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