

THE COMPANY JV "KTM-2000" LTD

was founded in May 2000 and today it has leading positions on the market of constructing materials of the Republic of Belarus.

Our company has grown from a small dealer company to the only Belarusian producer of decorative thresholds for floor coverings, cover plates for protection of stair corners, profiles for ceramic tiles.



Today JV "KTM-2000" is high-tech manufacturer of aluminum profiles which has developed engineering-technical and constructive base, machining workshops and the most modern in the Republic of Belarus line of anodizing of aluminum alloys.

ANODIZING

Due to the current market situation our founders decided to build our own galvanic line, namely – the workshop of anodizing of profiles and details from aluminum alloys.

The line of anodizing was launched on the 1st of June 2012. The modern robotized workshop was constructed within record period – just in 9 months. The construction required the total investment of more than one million Euro. The modern equipment was purchased in Sweden, Italy and Germany. In our production we have put together the latest technology in the field of galvanic coverings of aluminum alloys, systems of automatic control and monitoring of the technological processes from all over the world.

Technological processes were developed by German experts. German technology and chemical components will let us receive internationally recognized certificate of quality «QualAnod», the international sign of quality of anodic coverings of metals used in architectural construction.



EQUIPMENT

High-efficiency automatic equipment allows to anodize not only our own products – decorative thresholds for floor coverings and interiors, but also to render services of applying protective coverings for other customers. Today we offer anodizing in five basic colors: silver, gold, bronze, champagne, black, and their tones.

In 2012 on the basis of the workshop of anodizing a new direction - the production of profiles for sliding wardrobes - was launched. All the profiles were developed by the specialists of our company and they correspond to the upgraded versions of the popular Senator profiles. At the same time, there is a range of unique profiles of our own design, that have already gained popularity on the market, besides their price does not exceed the price of the classical profiles.



In 2013 for the first time in the Republic of Belarus we have mastered the production of unique anodized aluminum sheets without sealing which are used for metallographic. The quality of these sheets is equal to the quality of the sheets produced by the world leader - the company Polychromal, besides the price of our sheets is much lower than of the foreign analogs. It stands to mention that our specialists managed to achieve uniform coloring of sheets in deep black color, that is the most difficult technological challenge.

Moreover in 2013 we have mastered anodizing of the details. The obvious advantage of anodizing of the finished detail is that after applying of anodic covering all the surfaces of the detail will be protected against corrosion by anodic film. At the same time mechanical treatment after anodizing leads to open and not protected surfaces.

It is also necessary to take into consideration that mill finish aluminum is more flexible than anodized one, so it is much easier to bend it. When it is necessary to bend the detail hardly it is better to bend raw aluminum and then to anodize it. This will let hide some defects, such us small scratches which can appear during bending.

We can anodize details from such alloys 1070A, 1050A, 1200-O, 2014, 2024, 3103, 3105, 5005A, 5052, 5754, 5082, 6063, 6061, 7020, 7075 and the details produced from casting alloys.



WHAT IS THE PROCESS OF ANODIZING?

Anodizing is the controlled process of growth of anodized layer, which has many unquestionable advantages:

- the appearance of the product improves significantly (there are no small scratches, the surface structure becomes smoother);
- the surface looks dull-polished, the rests of chips left after the mechanical treatment are decomposed;
- one can obtain different colours and tones of anodized layer (see the colour scale);
- the high mechanical properties, the firmness of the anodized layer is significantly higher than that of the raw aluminum, that lets achieve better resistance to abrasion and to other mechanical damages;
- the physicochemical properties of the anodized layer are unmatched by any type of colouring, including polymeric colouring, because the anodized layer interacts with the crystal structure of aluminum, penetrating into it. Consequently, anodized layer can be separated from aluminum only by etching it in a strong acid;
- by using anodized layer we get high anticorrosion properties, which is especially important if the profiles or the details are to be used in corrosive environment:
- the anodized layer practically doesn't affect thermal conduction of aluminum, which lets apply it in heat-eliminating radiators used, for instance, for cooling radioelectronic equipment. Such effect is achieved due to controlled process of growth of anodized layer, and as a result one gets a surface with the same properties all over the surface, the "raw" aluminum affected by the atmosphere oxidizes irregularly, and the naturally obtained oxidation film is of chaotic structure and can seriously affect thermal conduction properties in corrosive environment;
- conductivity: anodizing layer is an insulating material, and if there is need to connect the covered part to an electric contact, it is necessary to remove (mechanically) the anodized layer locally at the place of the contact.



Our competitive advantages

- ·- the high quality of the anodized surface;
- the possibility of anodizing of small, average and large-size details;
- ·- we take orders from 50 kilos;
- -- we can offer anodizing in individual colours;
- -- promptness of fulfillment of the orders, the possibility of achievement of the ready product "just in time";
- we offer competitive prices!

Technical parameters of the line

- the sizes of processed profiles and details can be up to 3x1.4x0.25 m (3.15x1.5x0.3 m maximum).
- the thickness of anodized layer varies from 5 to 25 micron, depends on the customer's request.
- the line capacity is 600 ton per year.
- anodizing in different colours;
- types of colouring: electrochemical, chemical and interferential.

The machining workshop

For the convenience of our customers, we can render wide range of services of mechanical treatment, such as:

- drilling
- trimming
- cutting
- milling
- stamping
- bending
- weldingpolishing
- brushing
- shotblasting
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- lamination
- digital printing

Plans for 2013-2014 years

- the development and launch of new colours of anodizing: titanium, stainless steel, copper, marble;
- the purchase of new machines of brushing, polishing and shotblasting;
- purchase of new laminators operating on hot sealable glue;
- increase of line capacity from 600 tons per year to 1000 tons per year by purchase of additional fourth robot;
- increase of production flexibility by making specific titanium accessories for anodizing of complex details.