

Polyurethane:  
fire-resistant and  
sustainable.  
Impact-resistant and  
well designed!

Reliable, seamless, fire- and impact-resistant finishing with polyurethane.  
KROV B.V. offers unique, functional and aesthetic finishing possibilities for  
your products with the CAST-FORM®-technology and freedom of design.

# Discover the possibilities with KROV's patented CAST-FORM<sup>®</sup>-technology

## Fire-safe finishing bottom of the Lihok-chair

Manufacturer Stadler Seating wanted a unique, fire-safe finishing along the bottom of the Lihok-chair for the Transio train in Sweden. The most important criteria was that the solution should meet the stringent fire requirements imposed on trains (European norm: CEN 45545). KROV strives for the most efficient solution that meets the customer's needs. In concert with the manufacturer of the multiplex panel, KROV chose for an extra mechanical adhesive to provide the curved, thin panel with sufficient adhesion. By using a fire-resistant type of polyurethane, KROV not only delivered a sustainable solution, but an aesthetical one as well: we created unity between the chair and the panel.



## Fire-resistant edge on the back of the Lihok-chair

For Stadler Seating's luxurious Lihok-chair, that is fitted in (among others) the EC 250 train in Switzerland, KROV produces an ultra-thin, fire-resistant polyurethane finishing for the back of the seat. An important condition was meeting the very strict fire requirements (European norm: CEN 45545). On top of this, the edge must provide sufficient adhesion and protection. Due to its round shape and the panels' varying thickness, our main challenge was to properly spread the pressure over the panel (X-Y-Z axis). To this end, KROV developed a completely new machine. The result is an ideal, tailor-made solution focusing on the aesthetics, fire safety aspect and lifespan of the products.





### Fire-resistant edge for the back of Dosto seats

'Can KROV make the backs of the chairs on the Dosto trains stable and strong enough while at the same time making sure that the fabric is protected?' was train manufacturer Stadler's question. The bottom of the back of the chair is deepened to protect the HPL top layer as well as the upholstery. Due to the rounded shapes, our focus was on proper adhesion. KROV invented a seamless, aesthetical and lifespan extending solution that meets all fire requirements. The patented CAST-FORM® mould technology was especially adapted to allow the upright edge to be attached to the bottom of the seat. As an extra service, KROV takes care of assembling the seats' mounting tools.



### Component for prosthesis apparatus MajiCast

Low investment costs were the reason for developing solid polyurethane parts for an apparatus that produces made-to-measure prostheses.

Polyurethane components can be used in extreme conditions. On top of that, the material is robust and has a long lifespan. Due to the low investment costs, the CAST-FORM®-process is highly suitable for small series production. The CAST-FORM®-process' investment and production costs for small series are highly competitive compared to those of injection moulding. KROV also takes care of integrating the inserts.

### Waterproof housing for electronic hatcheries

For the electronics of a hatchery, it is essential that the machine is waterproof and protected against the chicklets' aggressive droppings. We use a soft type of polyurethane to protect the EPS-nucleus of the insulating panel. KROV wires the provided panel and installs a metal frame. The frame offers the option of attaching a cover at a later stage. By simultaneously casting an O-ring, the electronics can be closed off with a watertight fit.



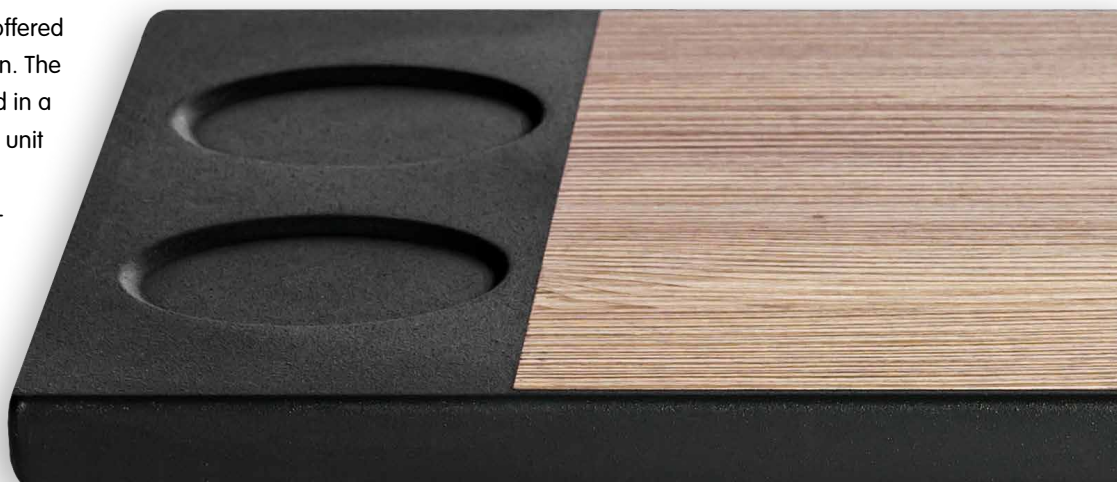
### Window table with cup holders for RRX train

Siemens is building the RRX trains in Germany. KROV was commissioned to develop a table with separate cup holders for these trains. KROV found a cheaper way by developing integrated cup holders, rather than separate ones. Working together with the client, the design was slightly modified, the polyurethane was applied in one casting and the cup holders were connected to the edge. By thinking along with the client, we found a cost-saving solution which is economical to buy and use and easier to clean. In addition, the beautiful seam between the cup holder and the surface of the table creates a beautiful aesthetic effect.




### Impact resistant table with cupholders in the Pendolino train

For the refurbishment of their Pendolino trains, the Czech railways required an impact resistant solution with integrated cupholders in the tables with drop-down wings. KROV not only developed an impact resistant, fire resistant and seamless edge finishing, but also offered an aesthetical and low-cost solution. The cupholders and edge were realised in a single cast, resulting in a seamless unit while keeping costs at a minimum. Thanks to our CAST-FORM®-technology, we were perfectly equipped to absorb any intolerances in thickness of the panel. Based on our own experience, we were able to realise this project at short notice.



# The right solution for every application



Your innovative product deserves a reliable, sustainable and high-quality product finishing with a matching look and feel. With KROV, you have chosen for the perfect solution, the best technology and a competitive price that will lead to the desired final product. We put our expertise to work to provide a solution that meets the demands on functionality and design.

## The right solution

With edge finishing for panels and components for devices and/or housing KROV's patented CAST-FORM®-production process provides solutions to any challenge in every work field. Not only do we think along with you about the application, but we also make our customers' desires, preconditions and demands our starting point. We equip your product with a high quality, seamless, polyurethane finishing in any desired shape and colour. Polyurethane is an exceptionally durable material, fire resistant, it withstands moisture, bacteria and chemicals extremely well and it has a long lifespan. KROV's freedom of form and design possibilities are endless. The relatively low mould costs and high turnaround time, make the technology attractive for both prototypes and small to medium-sized series and semi-finished goods.

### Benefits of polyurethane:

- Safe
- Chemically inert
- Hygienic (HACCP)
- Moisture resistant
- Fire Resistant
- Long lifespan (Sustainability)
- Solid and shock absorbing at the same time
- Freedom of colour
- Anti-static



KROV's experts develop tailor-made solutions that work as required. Do you want to know how our company can support your company or product idea?

Please get in touch  
with us

**Are you interested in the possibilities KROV has to offer within your product design? KROV will gladly advise you on the best choice available.**

# About KROV



Since 1988, KROV has been delivering innovative product finishes made of polyurethane. We have grown to become one of the most renowned polyurethane experts in Europe. Working with polyurethane requires knowledge of and experience with technological processes, material compositions and fields of application. Our experts execute the entire process immaculately; from thinking along during the design phase up to and including the realisation and integration of materials and products.

## Broad application range

Our very own patented CAST-FORM®-technology has a very wide range of applications. Numerous renowned companies make use of our solutions in combination with low costs, swift delivery and constant quality. We work for companies in the fields of interior construction, office design, train and ship fitting, and in healthcare.

## Added value

Our way of working is transparent and focuses on quality, reliability and sustainability. Our typical 'Achterhoeks' company culture is both down to earth and international. We relate to our customers. Thanks to our experienced staff, our CAST-FORM®-technology and our added value in customization, flexibility, quality and integral solutions, we can swiftly configure the most varied of demands.

## Discover KROV's endless possibilities!

### The benefits of the CAST-FORM®-technology:

- Unique, patented production process
- Freedom of design and shape
- Seamless solutions
- Proven production process
- Low, one-off mould costs
- Absorbing thickness tolerances
- Fast turnaround times
- Options to integrate other functions



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