

ROLL COVERING FOR THE WOOD PROCESSING AND FURNITURE

The transformation of wood products, and specifically the production of laminated boards and furniture panels, has known a fast evolution in the last few years.

The continuous efforts to reduce the consumption of raw materials and the need for faster, more performing production lines reflect on the coated rollers that are used in many processes.

Hannecard has developed roll covering solutions which comply with the most stringent demands and offer the highest possible output in all wood conversion processes.

YOUR REQUIREMENTS

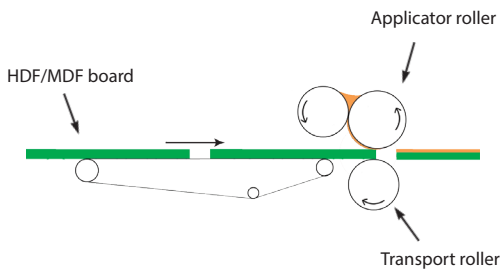
- Chemical resistance to varnishes, paints and solvents
- Abrasion resistance
- High precision and purity
- Easy regrinding
- Non staining covering

1. PRODUCTION HDF / MDF BOARD VARNISHING OF PANELS (WOOD, LIGHTWEIGHT BOARDS)

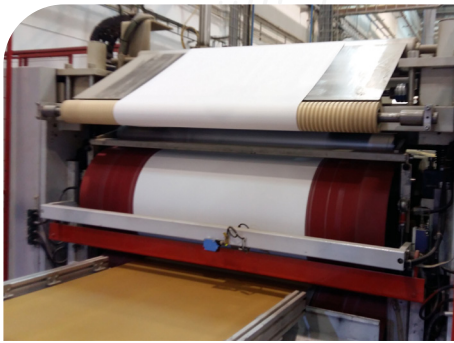
Elastomer coated rollers are widely used for the production of HDF and MDF board. Hannecard has developed roller coverings for the entire production lines - from the press rolls to the varnish applicator rolls. Most of the currently produced furniture is made of bonded layers consisting of: HDF, chipboard and honeycomb cardboard or natural wood. Our customers require efficient and durable roller coverings and of course an excellent application onto the appropriate substrate medium (putty, primer, UV varnish).

All cover solutions are characterized by a high purity and homogeneity and guarantee a constant performance in time, even after extended uses.

Therefore, to meet your expectations, Hannecard has developed special compounds to ensure the best performance.



Application	Solution	Characteristics
Press roller (WOOD A1)	WoodPress Black - Rubber 80 - 97 Shore A	<ul style="list-style-type: none"> • High compression strength • High resistance to temperature and moisture • High durability of coating
	WoodPress XP Brown - PU 70- 99 Shore A	<ul style="list-style-type: none"> • Outstanding abrasion resistance • Very high load and cutting resistance • Excellent response to deformation
Applicator rollers Staining / colouring (WOOD B1) Varnishing (TOP UV) (WOOD B4) Mastic	WoodCoat-S Grey - Green Rubber 30 - 80 Shore A	<ul style="list-style-type: none"> • Excellent resistance to solvents (alcohols, acetates and ketones) • Universal quality for applicator rollers • Good abrasion resistance
	WoodCoat-SP Black - Rubber 55 - 70 - 75 Shore A	<ul style="list-style-type: none"> • Excellent resistance to deformation • Excellent resistance to cutting • Recommended for water or oil-based coatings only (not adapted for UV varnishing)
	Monkal-4® Beige - PU 55 - 65 Shore A	<ul style="list-style-type: none"> • High cut and abrasion resistance • Recommended for long production runs • Can be used for water and solvent based coating
	Monkal-5® Color according to hardness - PU 15-70 Shore A	<ul style="list-style-type: none"> • Available at very low hardness - ideal for structured forms • Good wettability, including for water based products • Suitable for use in solvent environments (see specific instructions) • Good abrasion resistance - very good cut resistance
Pattern printing (WOOD B3)	WoodPrint-S Black - Rubber 25 - 80 Shore A	<ul style="list-style-type: none"> • Extra smooth surface finish (low roughness) • High load resistance
Transport / Guide rollers (WOOD B2)	WoodGuide-S Beige - Rubber 45 - 80 Shore A	<ul style="list-style-type: none"> • Very good abrasion resistance • Good response to deformation • High load resistance • Non staining
	WoodGuide-XP Brown - PU 70 - 95 Shore A	<ul style="list-style-type: none"> • Excellent abrasion resistance • Very high load resistance • Excellent response to deformation • Non staining



2. LAMINATION (WITH PAPER OR FILM)

Lamination is becoming an increasingly popular method to enhance the surface of HDF, MDF and particle boards. This technique is used to achieve the expected visual aspect on the processed woodbased panels. The process of lamination involves the use of printed papers or films imitating natural wood grain for a unique, natural appearance. However, in order to obtain a perfect final product, it is required to use suitable tools, including appropriate coatings on the calendar rollers. The coating is expected to show an adequate resistance to temperature and pressure and needs to be durable. Depending on the press design, the glue can either be sprayed or applied thanks to roller coating.

In order to optimize the results, Hannecard offers the following solutions :

YOUR REQUIREMENTS

- Stable behaviour, also during long production runs and after extended use
- Chemical resistance
- High precision and purity
- Load resistance

Application	Solution	Characteristics
Glue dosing roller (WOOD C1)	Ebodose Brown - Rubber 80 Shore D	<ul style="list-style-type: none"> • Antistatic properties • Stable behaviour in time • Low surface roughness can be obtained
	HanneSpray Cr / Cr Plus Carbide - 900 / 1100 HV	<ul style="list-style-type: none"> • Excellent abrasion resistance • Good corrosion resistance • High thickness possible • Low roughness up to mirror finish (<0.05µm)
Glue applicator roller (WOOD C2)	WoodBond-S Black - Rubber 25 - 80 Shore A	<ul style="list-style-type: none"> • High purity • Excellent transfer prosperities • Very good abrasion resistance
Hardener application roller (WOOD C3)	WoodCoat - S Grey / Green - Rubber 30 - 80 Shore A	<ul style="list-style-type: none"> • Excellent resistance to solvents (alcohols, acetates and ketones) • Very good abrasion resistance • High purity and homogeneity
	Woodcoat - XP Green / Grey - Rubber 50 - 80 Shore A	<ul style="list-style-type: none"> • Excellent resistance, tear and cut-in resistance • High purity and homogeneity • Good acid resistance
Calendar rollers (WOOD C4) Hot melt Glue Applicator (WOOD E3)	HanneSil Grey 60 - 70 Shore A	<ul style="list-style-type: none"> • Resistance to temperatures of up to 180°C • Good load resistance
	Vulcan Red 60 - 70 Shore A	<ul style="list-style-type: none"> • Very high temperature resistance (up to 260°C) • Non-stick optimization for easy cleaning
	HanneSil-HP Green 70 Shore A	<ul style="list-style-type: none"> • Very high temperature resistance (up to 230°C) • Optimized mechanical resistance

For more details about the printed papers or films imitating natural wood grain for a unique, natural appearance, [click here](#) to have a look at our dedicated Décor brochure.

YOUR REQUIREMENTS

- Soft covers for deformability
- Chemical resistance
- High precision and purity
- Easy regrinding
- Non-staining

3. PRODUCTION OF FLOOR BOARDS

During the production of (multilayer) floorboards, the coated rollers are submitted to repeated shocks causing wear and fatigue.

Hannecard has developed roll covers with excellent recovery properties after each deformation. The outstanding abrasion, tear and cut-in resistance result in a considerable improvement of the lifetime.

Hannecard also offers a range of highly deformable rubber and polyurethane covers that allow to coat the chamfers, as well as embossed wood patterns (aged wood effect).

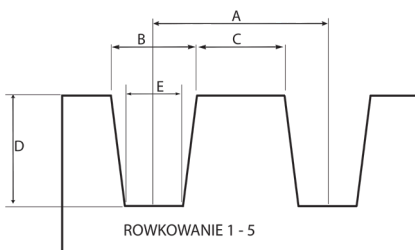


Application	Solution	Characteristics
Applicator rollers Staining / colouring (WOOD D3)	WoodCoat - S Grey / Green - Rubber 30 - 80 Shore A	<ul style="list-style-type: none"> • Excellent resistance to solvents (alcohols, acetates and ketones) • Universal quality for applicator rollers • Good abrasion resistance
	WoodCoat - SP Black - Rubber 40 - 80 Shore A	<ul style="list-style-type: none"> • Excellent resistance to deformation • Excellent resistance to cutting • Recommended for water or oil-based coatings only (not adapted for UV Varnishing)
Varnish Applicator rollers (WOOD D1)	Monkal-4® Beige - PU 40 - 65 Shore A	<ul style="list-style-type: none"> • High cut and abrasion resistance • Recommended for long production runs • Can be used for water and solvent based coating
	Monkal-5® Beige - PU 40 - 65 Shore A	<ul style="list-style-type: none"> • Available at very low hardness – ideal for structured forms • Good wettability, including for water based products • Suitable for use in solvent environments (see specific instructions) • Good abrasion resistance – very good cut resistance
Transport / Guide rollers (WOOD B2)	WoodGuide-S Beige - Rubber 45 - 70 Shore A	<ul style="list-style-type: none"> • Good abrasion resistance • Resistance to deformation • High compression strength
	WoodGuide-Xp Brown - PUR 70 - 95 Shore A	<ul style="list-style-type: none"> • Excellent abrasion resistance • Very high compression strength • Very high resistance to deformation



4. WOOD BONDING (DOORS, FURNITURE, FLOORS)

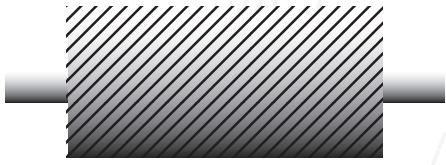
Bonding and decorative surfacing of wood is a process designed to enhance the visual appearance of the element and reduce its production costs. To achieve suitable adhesive bonding strength, an appropriate type and quantity of glue must be applied to the surface. To ensure the right application loading, the roller coating may be grooved according to your needs. The roller coating and grooving are selected to match the adhesive used : Urea-formaldehyde (UF), Melamine-Urea-Formaldehyde (MUF), Phenol-Formaldehyde (PF), Resorcinol-Formaldehyde (RF), Polyvinylacetate (PVAc), Emulsion Polymer Isocyanate (EPI)...



YOUR REQUIREMENTS

- Chemical resistance to the glue
- Precise and correct groove pattern
- Long lifetime, abrasion resistance

Application	Solution	Characteristics
Grooved applicator roller (cold glue) (WOOD E1)	WoodBond-S Black - Rubber 40 - 80 Shore A	<ul style="list-style-type: none"> • Good abrasion resistance • Low deformation under pressure • High compressive strength
	WoodBond - XP Black - Rubber 60 - 80 Shore A	<ul style="list-style-type: none"> • Very good abrasion resistance • Very high compressive strength • Very low deformation under pressure
Glue transfer roller (WOOD E2)	EboDose Brown - Rubber 100 Shore A	<ul style="list-style-type: none"> • Good abrasion resistance • High shape stability in time • Grinding possible with very low Ra values
	HanneSpray Cr / Cr Plus Carbure - 900 / 1100 HV	<ul style="list-style-type: none"> • Excellent abrasion resistance • Good corrosion resistance • High thickness possible • Low roughness up to mirror finish (<0.05µm)



5. CALIBRATING AND SANDING

The objective of wood sanding processes is to remove manufacturing marks, which are caused by woodworking machines, and to remove other defects such as dents and small damages that may have been introduced in handling.

The sanding and polishing operations ensure the adequate calibration and surface finish, both on plain wood and laminated panels.

Sanding belts are driven by specific, rubber coated rollers. Hannecard offers long-lifetime solutions for heavy, as well as medium and light sanding and can also handle the dynamic balancing, which is necessary in function of the high turning speed.

YOUR REQUIREMENTS

- Low heat build-up
- Efficient grooving for heat evacuation
- High driving power
- Long lifetime, abrasion resistance

Application	Solution	Characteristics
Heavy sanding / grinding (WOOD F1)	HanneSand-1 Black - Rubber 80 - 90 Shore A	<ul style="list-style-type: none"> • Very good physical properties and abrasion resistance • Excellent dimensional stability in time
Medium sanding (WOOD F2)	HanneSand-2 Black - Rubber 50 to 65 Shore A	<ul style="list-style-type: none"> • Outstanding resilience and dimensional stability • Very low heat build-up • Very high abrasion resistance
	HanneSand-XP Translucent - PU 70 Shore A	<ul style="list-style-type: none"> • Outstanding resilience and dimensional stability • Very low heat build-up • Very high abrasion resistance
Light sanding / polishing	HanneSand-3 Brown - Rubber 25 Shore A	<ul style="list-style-type: none"> • Very good abrasion resistance • High elasticity

Other hardness possibilities are available on demand

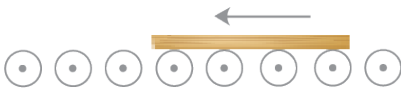


6. JOINERY OPERATIONS

The sawing and planing of planks, boards, profiles and mouldings requires specific elastomer coated wheels. Besides the choice of the cover, also the mechanical shape of the wheels is of great importance.

Hannecard offers not only the best performing covers, but also special finishing (crowning, grooving) and engineering services as repair and dynamic balancing.

Application	Solution	Characteristics
Hand wheel for band saw machine (WOOD G1)	HanneElast-SP Black - Rubber 70 - 80 Shore A	<ul style="list-style-type: none"> • For soft hand wheels • Very good abrasion resistance • Low dynamic heat build-up
	Hannethane S Brown - PUR 90 - 95 Shore A	<ul style="list-style-type: none"> • For hard hand wheels • Very good mechanical resistance • High stability over time
Drive wheel for 4 sides planing (WOOD G2)	WoodGuide-S Beige - Rubber 60 - 70 Shore A	<ul style="list-style-type: none"> • Good abrasion resistance • Resistance to deformation • High compression strength • Non staining
	Hannethane-XP Brown - PUR 80 - 90 Shore A	<ul style="list-style-type: none"> • Very high physical properties • Very high abrasion resistance



7. TRANSPORT / GUIDE / CONVEYING

Conveyor cylinders of panels, doors, boards, furniture fronts are usually metallic.

To Protect the products to be conveyed from shocks, limit noise in the conveyor area and Improve grip and guidance, Hannecard offers various solution:

Application	Solution	Characteristics
Reversal cone	HanneStar Beige -Rubber 65 – 75 Shore A	<ul style="list-style-type: none"> • Excellent abrasion resistance • Good response to deformation • High load resistance • Non staining
Protection sleeve for metallic cylinders	RollSleeve Beige -Rubber 45 Shore A	<ul style="list-style-type: none"> • Economic solution • Can be delivered in profile rolls to be cut on site or cut to length. • Easy to mount with air pressure. • Standard thickness: 3 mm • Non staining

MORE INFORMATION?

For more information, please contact your local Hannecard partner or visit our website at: www.hannecard.com