

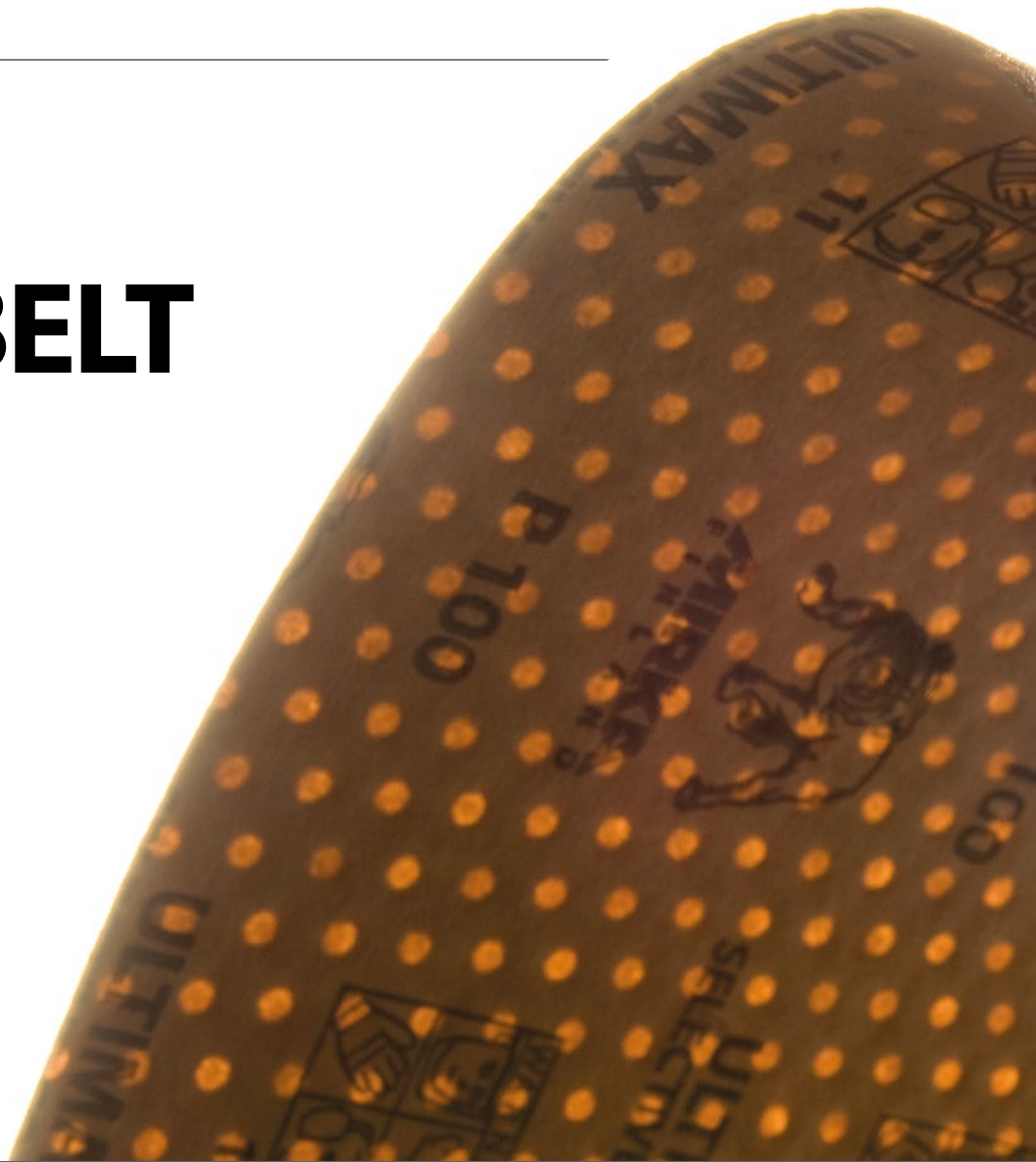


**MIRKA**

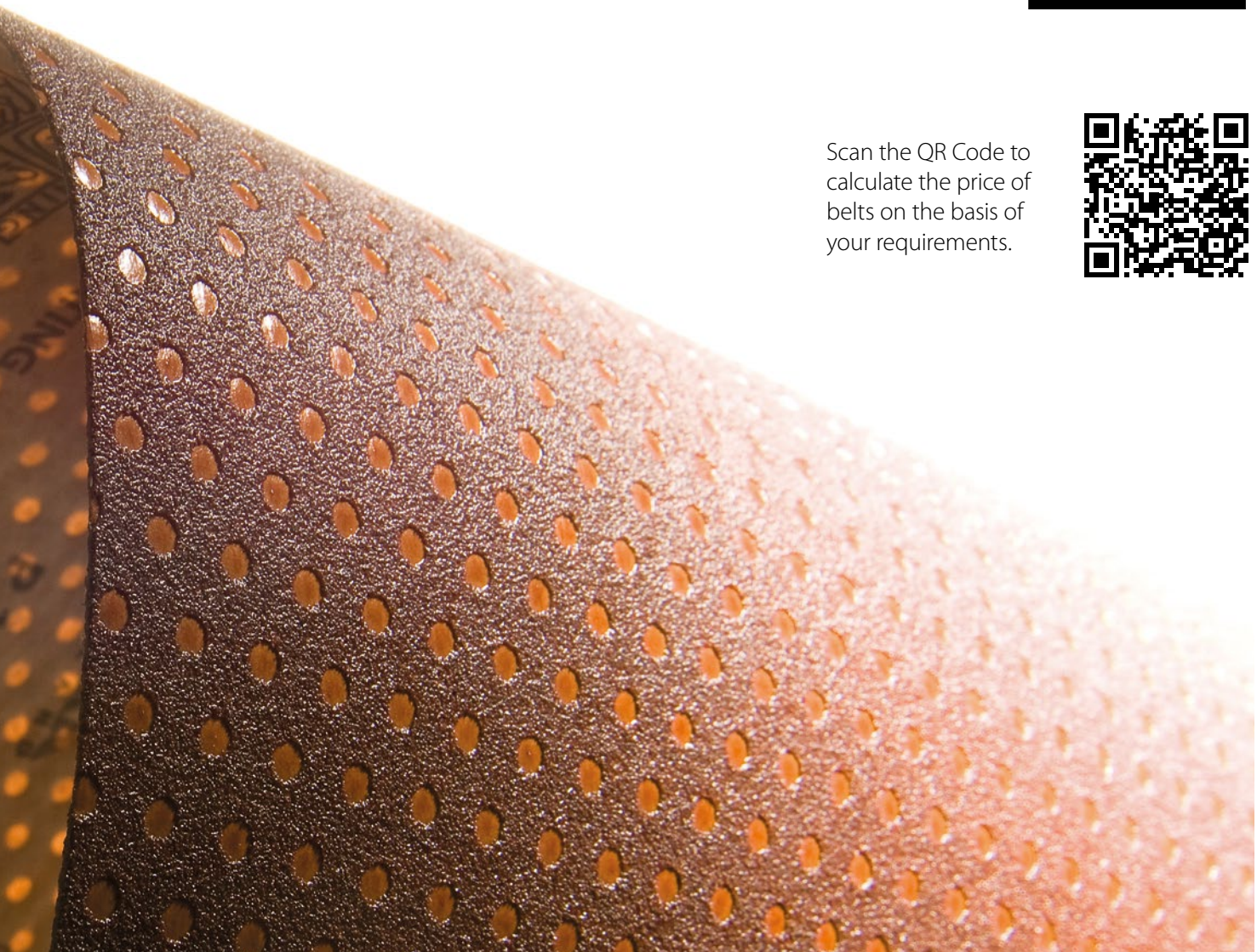
WOOD SANDING  
**BELTS**



# MIRKA BELT RANGE



HEAVY SANDING / CALIBRATION	SURFACE SANDING					
	HARD WOOD (also MELAMINE)		SOFT WOOD		SOFT AND HARD WOOD	MDF / HDF
<b>Hiolit XO</b> P36–P80 Polyester cloth backing P100–P240 X-weight cotton cloth backing Aluminium oxide Semi open	<b>Jepuflex Antistatic</b> P36–P400 Antistatic T- and F-paper backing Aluminium oxide / Silicon carbide Closed	<b>Ultimax®</b> P40–P320 Antistatic T- and F-paper backing Aluminium oxide Closed with Selective coating® technology	<b>Avomax® Antistatic</b> P40, P60–P240, P320 Antistatic T- and F-paper backing Aluminium oxide Open	<b>Sica Open</b> P80–P180 Fully antistatic F-paper backing Silicon carbide Open	<b>Unimax®</b> P80–P220 Fully antistatic F-paper backing Aluminium oxide Semi open	<b>Sica Closed</b> P80–P220 Fully antistatic F-paper backing Silicon carbide Closed
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Scan the QR Code to calculate the price of belts on the basis of your requirements.



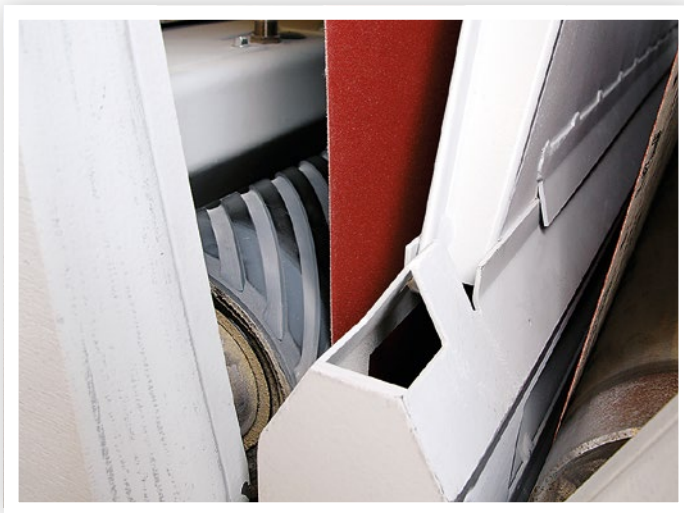
INTERMEDIATE AND TOP COAT SANDING

PROFILE SANDING

INTERMEDIATE SANDING			TOP COAT SANDING (PRIOR TO POLISHING)		FLAT PROFILES	CONTOURED PROFILES
			Normal coating	Very hard coating		
<b>Sica Fine Stearate</b> P240–P1500 Fully antistatic E-paper backing Stearate Silicon carbide Semi open	<b>Gold Max</b> P240–P800 Antistatic E-paper backing Stearate Aluminium oxide Semi open	<b>MI231A</b> P360–P2500 Polyester film backing Aluminium oxide Semi open Narrow belt	<b>MI231A</b> P360–P2500 Polyester film backing Aluminium oxide Semi open Narrow belt	<b>MI231C</b> P180–1200 Polyester film backing Aluminium oxide (ceramic coating) Semi open Narrow belt	<b>Abranet® Max</b> P80–P240 PA net backing Aluminium oxide Closed Narrow belt	<b>Hiolit JCA2A0</b> P60–P400 J-weight cotton cloth backing Aluminium oxide Semi open Narrow belt
0), stearate coating, antistatic E-paper backing, silicon carbide, semi-open with selective coating						
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# CALIBRATION/STOCK REMOVAL

Sanding of rough-sawn and nonuniform wood. Removal of planing marks and other defects.



## SANDING WITH **NARROW AND WIDE BELTS**

» Calibration and stock removal operations require abrasives with particularly wear-resistant backings in PES cloth or T-paper.

### RECOMMENDED ABRASIVES

**P40 – P80**

#### CLOTH BACKING

#### PAPER BACKING

#### HARDWOODS



» Hiolit XO



» Ultimax®



» Jepuflex® Antistatic

#### SOFTWOODS



» Hiolit XO



» Ultimax®



» Avomax® Antistatic

#### MDF



» Hiolit XO

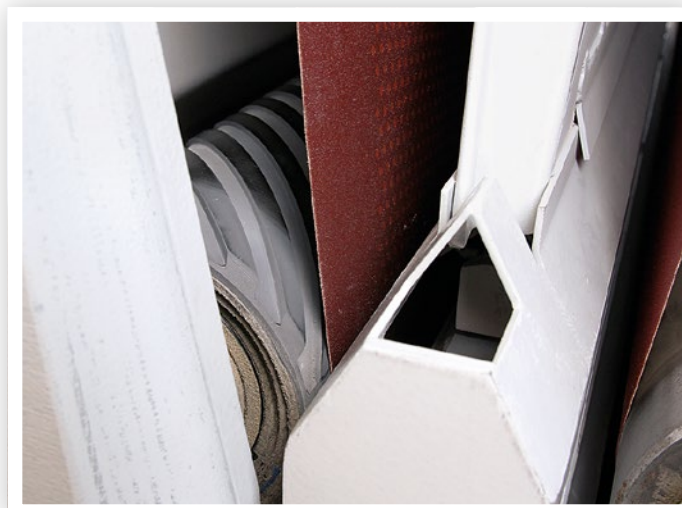


» Ultimax®



# SANDING OF BARE WOOD

Sanding of bare wood before applying base coat or protective products.



## SANDING WITH **NARROW AND WIDE BELTS**

» When sanding bare wood, it is important to choose the right abrasive to ensure operations proceed without setbacks and to achieve the required finish. Ultimax Selective Coating® technology guarantees a longer belt life.

### RECOMMENDED ABRASIVES

**P80 – P180**

#### PAPER BACKING

#### HARDWOODS



» Ultimax®



» Jepuflex® Antistatic



» Unimax®



» Ultimax® Black

#### SOFTWOODS



» Ultimax®



» Avomax® Antistatic



» Unimax®



» Ultimax® Black

#### MDF



» Ultimax®



» Sica Closed



» Ultimax® Black

# PAINTS AND MELAMINE

Fine sanding/removal of small defects in the base layer or sealer before applying paint or enamel.



## SANDING WITH BELTS

» An abrasive coated with stearates minimises the risk of clogging and extends the lifespan of the belt.

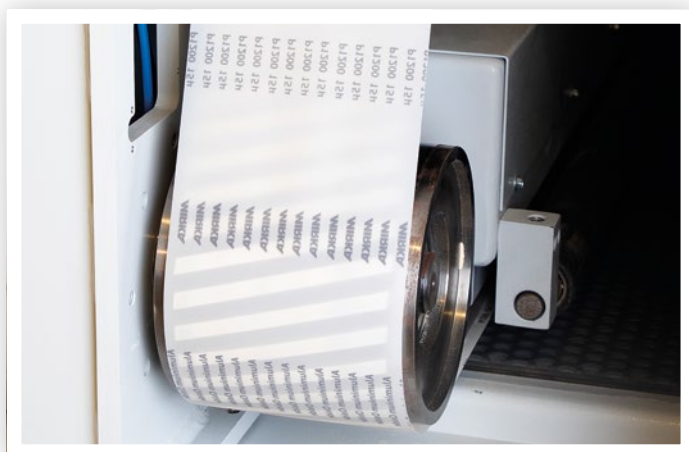
### RECOMMENDED ABRASIVES

#### P240 – P600

	PAPER BACKING			FILM BACKING
<b>HARD SURFACES</b>	 <p>» Gold Max (Narrow and wide belts)</p>	 <p>» Sica Fine Stearate (Wide belts)</p>	 <p>» Ultimax® Black (Narrow and wide belts)</p>	 <p>» MI231C (Narrow belts)</p>
<b>SOFT SURFACES</b>	 <p>» Gold Max (Narrow and wide belts)</p>		 <p>» Ultimax® Black (Narrow and wide belts)</p>	 <p>» MI231A (Narrow belts)</p>
<b>MELAMINE AND SIMILAR PRODUCTS</b>	 <p>» Ultimax® (Narrow &amp; wide belts up to P320)</p>	 <p>» Jepuflex® Antistatic (Narrow &amp; wide belts up to P400)</p>	 <p>» Ultimax® Black (Narrow &amp; wide belts up to 1000 grits)</p>	 <p>» MI231A (Narrow belts)</p>
<b>POLYESTER SEALERS / POLYESTER / WATER-BASED</b>	 <p>» Ultimax® (Narrow &amp; wide belts up to P320)</p>			 <p>» MI231A (Narrow belts)</p>

# GLOSS SANDING

Fine sanding and removal of paint defects before polishing.



## SANDING WITH BELTS

» A belt with film backing ensures a delicate and even finish, essential for achieving the finest glossy finishing results.

### RECOMMENDED ABRASIVES

**P800 – P1500**

#### PAPER BACKING

#### FILM BACKING

#### PAINTS/ENAMELS



» **Gold Max**  
(Narrow and wide belts)



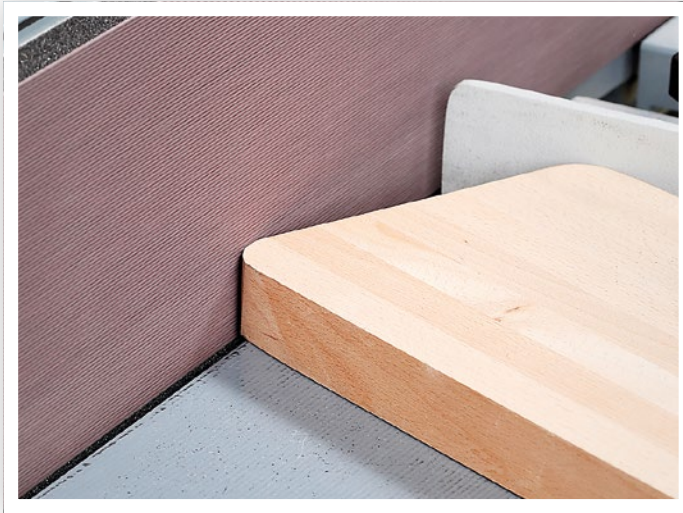
» **Ultimax® Black**  
(Narrow & wide belts;  
600 – 1000)



» **MI231A**  
(Narrow belts)

# PROFILE SANDING


Sanding of profiles and areas which are difficult to reach.



## INDUSTRIAL SANDING

» A stiff abrasive in PES or X-weight cloth is recommended for sanding flat surfaces, while a soft J-weight cloth abrasive is recommended for contoured surfaces. The special net backing of our Abranet® Max helps increase productivity thanks to its durability and ability to disperse heat.

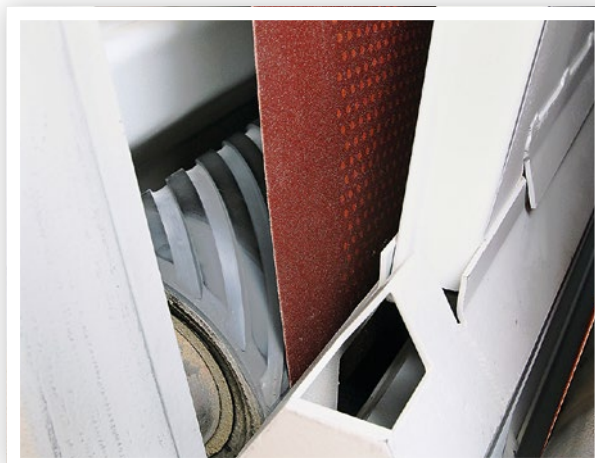
### RECOMMENDED ABRASIVES

	CLOTH BACKING	NET BACKING	PAPER BACKING		
<b>STIFF</b>	 <p>» Hiolit XO</p>	 <p>» Abranet® Max</p>	 <p>» Jepuflex® Antistatic</p>	 <p>» Avomax® Antistatic</p>	 <p>» Ultimax® Black</p>
<b>FLEXIBLE</b>	 <p>» Hiolit JCA2A0</p>		 <p>» Gold Max</p>		



# FLOORING PRODUCTION

Industrial sanding for wood floor production.



## TOP SURFACE

» Selective Coating® technology improves the lifespan of the abrasive thanks to the reduced risk of clogging and burning compared to traditional abrasives.

### RECOMMENDED ABRASIVES

#### P80 – P180

##### CLOTH BACKING

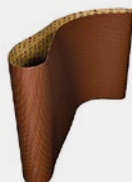


» Hiolit XO

##### PAPER BACKING



» Jepuflex® Antistatic



» Ultimax®



» Ultimax® Black



## INTERMEDIATE SANDING

» A stearate-coated abrasive resists clogging and ensures greater belt lifespan, reducing production downtime.

### RECOMMENDED ABRASIVES

#### P240 – P320

##### PAPER BACKING



» Gold Max



» Sica Fine Stearate



» Ultimax® Black

# FLOOR SANDING & REFINISHING

Sanding process for refinishing wooden floors.



## SANDING WITH BELTS

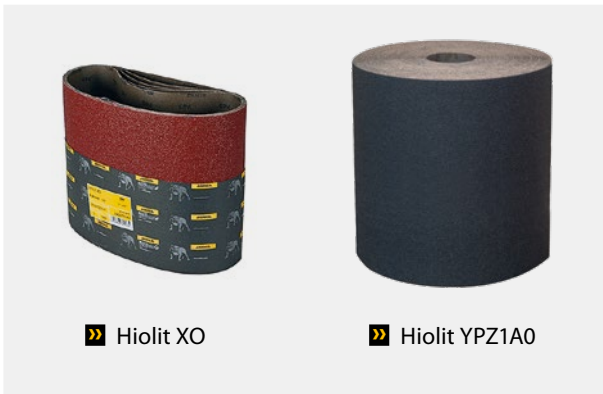
» Heavy cuts removing large quantities of material require a robust, wear-resistant cloth or paper backing.

## SURFACE SANDING

RECOMMENDED ABRASIVES

**P36 – P80**

### CLOTH BACKING



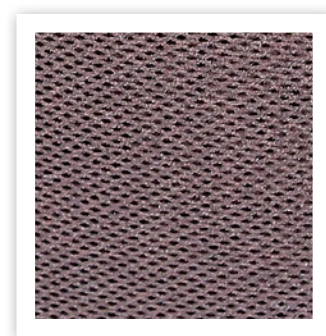


# ABRANET® MAX

Abranet Max is a universal abrasive with net backing well-suited to many types of sanding, particularly in the wood industry. Thanks to the net backing, it does not clog during sanding of resinous woods or soft materials, and the surface being sanded does not overheat. The extremely strong aluminium oxide grains offer high cutting speeds on the hardest woods. The symmetrical mesh structure allows for an efficient cut and excellent stock removal. The reduced pressure required and the more uniform finish ensure constant quality in the sanding process when using Abranet Max. It offers exceptional durability compared to traditional abrasive belts, which translates into fewer belts required to complete the work, as well as savings in terms of costs and production time. The product is also suitable for applications where water is used for cooling.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Closed
<b>Colour</b>	Brown/White
<b>Grit range</b>	P40, P60, P80, P100, P120, P150, P180, P220, P240
<b>Backing</b>	PA net
<b>Formats</b>	Rolls, narrow belts
<b>Available widths</b>	50–300 mm
<b>Available lengths</b>	303–10800 mm



## RECOMMENDED FOR:

sanding of solid wood, fibreglass, processes requiring high stock removal rates

# AVOMAX® ANTISTATIC

Developed for wood sanding applications, Avomax Antistatic's open coating makes it ideal for sanding materials that clog easily. The product is ideal for sanding soft materials and resinous woods such as pine, at the same time guaranteeing a long lifespan and smooth surface finishing. The antistatic paper backing allows for the production of dimensionally accurate and reliable wide belts. Resin over resin bonding and aluminium oxide grains guarantee a very durable product.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Open
<b>Colour</b>	Maroon
<b>Grit range</b>	P40, P60, P80, P100, P120, P150, P180, P220, P240, P320
<b>Backing</b>	T-paper/F-paper/Antistatic paper
<b>Formats</b>	Rolls, narrow belts, wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm



## RECOMMENDED FOR:

sanding of softwoods on auto-feeding and handheld machines

# GOLD MAX

Gold Max is a stearate-coated abrasive on paper backing for intermediate and fine sanding applications. The antistatic E-paper gives good durability and stability to the product, ensuring even surface finishing. The heat-treated aluminium oxide enables a high cut rate even on harder paints. The semi-open special coating minimises clogging and increases the product's lifetime. Gold Max is suitable for paint and lacquer sanding.



TECHNICAL SPECIFICATION	
<b>Bonding</b>	Resin over resin
<b>Grain</b>	Heat-treated aluminium oxide
<b>Coating</b>	Semi-open
<b>Colour</b>	Gold
<b>Grit range</b>	P240, P320, P400, P500, P600, P800
<b>Backing</b>	Antistatic E-paper
<b>Formats</b>	Rolls, narrow belts, wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm

**RECOMMENDED FOR:**  
sanding of paints on auto-feeding machines

# HIOLIT JCA2A0

Hiolit JCA2A0 is designed for sanding of soft and hard woods, MDF and soft metals, such as brass and aluminium. The cotton cloth backing makes it tough and ideal for sanding of profiles, seams, edges, joints etc. The semi-open coating, fast cut, long lifespan and high stock removal makes Hiolit JCA2A0 a truly universal abrasive.



TECHNICAL SPECIFICATION	
<b>Bonding</b>	Resin over resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Semi-open
<b>Colour</b>	Brown
<b>Grit range</b>	P60, P80, P100, P120, P150, P180, P220, P240, P320, P400
<b>Backing</b>	J-weight cotton cloth
<b>Formats</b>	Rolls, narrow belts
<b>Available widths</b>	Check widths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>
<b>Available lengths</b>	Check lengths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>

**RECOMMENDED FOR:**  
semi-flexible cloth for sanding of wood or soft materials

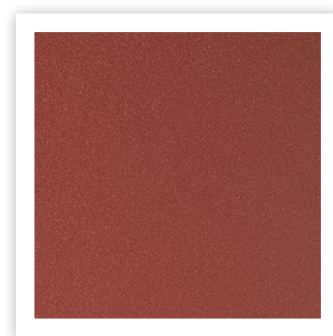


# HIOLIT XO

Hiolit XO is a semi-open stiff universal abrasive. Its excellent edge wear resistance and durability make it ideal for belt sanding and other machine sanding. In particular, it produces high quality results on challenging materials. Grits from 36–80 are suitable for aggressive sanding operations, such as rust removal, as well as stock removal where large amounts of material need to be removed.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Semi-open
<b>Colour</b>	Brown
<b>Grit range</b>	P36, P40, P50, P60, P80, P100, P120, P150, P180, P220, P240
<b>Backing</b>	Polyester cloth P36–P80 / X-weight cotton cloth P100–P240
<b>Formats</b>	Discs, narrow belts, wide belts
<b>Available widths</b>	Check widths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>
<b>Available lengths</b>	Check lengths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>



## RECOMMENDED FOR:

heavy sanding, stock removal

# HIOLIT YPZ1A0

A robust and aggressive abrasive thanks to the extremely hard zirconia grains and the tough Y-weight polyester cloth backing. It offers high stock removal rates and the cloth backing is less prone to tearing. It is suitable for both wet and dry applications, and is ideal for heavy sanding and calibration.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin
<b>Grain</b>	Zirconia
<b>Coating</b>	Closed
<b>Colour</b>	Blue
<b>Grit range</b>	P24, P36, P40, P60, P80, P100, P120
<b>Backing</b>	Y-weight polyester cloth
<b>Formats</b>	Discs, narrow belts, wide belts
<b>Available widths</b>	Check widths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>
<b>Available lengths</b>	Check lengths at <a href="https://www.mirka.com/en/know-how/applications/belt-sanding">https://www.mirka.com/en/know-how/applications/belt-sanding</a>



## RECOMMENDED FOR:

heavy sanding, calibration

# JEPUFLEX® ANTISTATIC

A high-quality abrasive with a wide range of applications. Ideal for sanding of hardwoods such as beech, birch and oak. The antistatic paper backing allows for the production of dimensionally accurate and reliable wide belts. Resin over resin bonding and aluminium oxide grains guarantee a very durable product. The silicon carbide grain used in the coarsest grits gives the product even greater durability. These qualities, combined with the closed coating, make Jepuflex Antistatic a genuine all-round product that also works well on metal, plastic and paint.

TECHNICAL SPECIFICATION	
<b>Bonding</b>	Resin over resin
<b>Grain</b>	Silicon carbide / Aluminium oxide
<b>Coating</b>	Closed
<b>Colour</b>	Maroon
<b>Grit range</b>	P36, P40, P60, P80, P100, P120, P150, P180, P220, P240, P320, P400
<b>Backing</b>	Antistatic T-paper/F-Paper
<b>Formats</b>	Discs, rolls, narrow belts, wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm



**RECOMMENDED FOR:**

sanding of hardwoods on auto-feeding and handheld machines

# MI231A

Polishing film designed for finishing of glossy/polished surfaces. MI231A is manufactured to the highest quality and accuracy standards using the most technically advanced materials and processes. MI231A has a semi-open distribution of aluminium oxide grains, which resist clogging of the abrasive surface and produces a delicate finish. This polishing film can be used for both wet or dry applications. Available on a 5 mil anti-slip backing.

TECHNICAL SPECIFICATION	
<b>Bonding</b>	Low-VOC resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Semi-open
<b>Colour</b>	White
<b>Grit range</b>	30µ (P500), 20µ (P800), 15µ (P1200), 9µ (P2500)
<b>Backing</b>	Polyester film
<b>Formats</b>	Roll, narrow belts
<b>Available widths</b>	15–300 mm
<b>Available lengths</b>	250–4500 mm



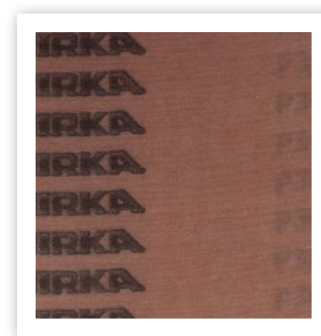
**RECOMMENDED FOR:**

polishing of glossy surfaces before brushing (recommended grits 20µ and 15µ) with narrow belts and on auto-feed machines



# MI231C

Film designed for precision sanding of hard surfaces. MI231C is manufactured to the highest quality and accuracy standards using the most technically advanced materials and processes. MI231C features a semi-open distribution of ceramic-coated aluminium oxide grains. Available on a 5 mil anti-slip backing, this film can be used for both wet and dry applications.



## TECHNICAL SPECIFICATION

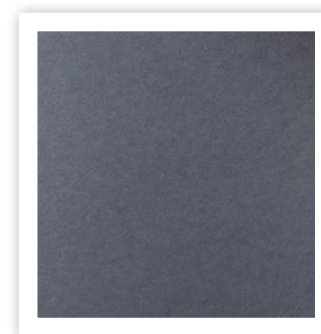
<b>Bonding</b>	Low-VOC resin
<b>Grain</b>	Ceramic-coated aluminium oxide grains
<b>Coating</b>	Semi-open
<b>Colour</b>	Red
<b>Grit range</b>	80 $\mu$ (P180), 60 $\mu$ (P220), 30 $\mu$ (P500), 20 $\mu$ (P800), 15 $\mu$ (P1200)
<b>Backing</b>	Polyester film
<b>Formats</b>	Rolls, narrow belts
<b>Available widths</b>	15–300 mm
<b>Available lengths</b>	250–4500 mm

## RECOMMENDED FOR:

sanding of hard surfaces with narrow belts and on auto-feed machines

# SICA CLOSED

Designed for sanding of MDF and other materials containing mineral debris, Sica Closed is an antistatic abrasive suitable for materials covered with water-based coatings. It maintains its shape well, and the silicon carbide grains raise the wood fibres less with a finer scratch pattern than products using aluminium oxide grains, for a better final finish after surface treatment.



## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin/Antistatic
<b>Grain</b>	Silicon carbide
<b>Coating</b>	Closed
<b>Colour</b>	Black
<b>Grit range</b>	P80, P100, P120, P150, P180, P220
<b>Backing</b>	Antistatic F-paper
<b>Formats</b>	Wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm

## RECOMMENDED FOR:

sanding of hard surfaces thanks to the silicon carbide grains

# SICA FINE STEARATE

Sica Fine Stearate is an antistatic “stearate” product which produces minimal dust load and a high-quality surface finish. It offers excellent results after top coating/lacquering, even minimising product consumption.



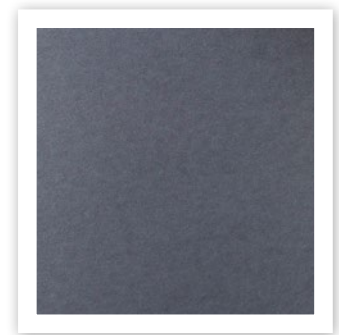
## TECHNICAL SPECIFICATION

<b>Bonding</b>	Stearate-coated resin over resin/Antistatic
<b>Grain</b>	Silicon carbide
<b>Coating</b>	Semi-open
<b>Colour</b>	Grey
<b>Grit range</b>	P240, P320, P400, P500, P600, P800, P1000, P1200, P1500
<b>Backing</b>	Antistatic E-paper
<b>Formats</b>	Wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm

**RECOMMENDED FOR:**  
sanding of painted surfaces with narrow or wide belts, with auto-feed machines

# SICA OPEN

Sica Open is the recommended solution for sanding soft, resin-rich wood types. The open coating and completely antistatic backing material and layers limit dust accumulation and prevent clogging, improving the durability of Sica Open. In addition, the silicon carbide grains produce a smoother scratch pattern and a higher surface gloss level than aluminium oxide grains.



## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin/Antistatic
<b>Grain</b>	Silicon carbide
<b>Coating</b>	Open
<b>Colour</b>	Black
<b>Grit range</b>	P80, P100, P120, P150, P180
<b>Backing</b>	Antistatic F-paper
<b>Formats</b>	Wide belts
<b>Available widths</b>	75–1400 mm
<b>Available lengths</b>	550–10800 mm

**RECOMMENDED FOR:**  
sanding of wood and soft materials with narrow or wide belts

# ULTIMAX®

Ultimax is the revolutionary abrasive developed by Mirka's labs for sanding with wide belt sanders and vertical sanding machines. It is manufactured using the innovative Mirka Selective Coating® technology, which creates hundreds of perfectly round cavities on the abrasive surface. Ultimax has been designed for industrial sanding of hardwoods, but also offers excellent performance on MDF, chipboard, veneered panels and softer woods.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Closed coating with Selective Coating® technology
<b>Colour</b>	Brown
<b>Grit range</b>	P40, P60, P80, P100, P120, P150, P180, P220, P240, P320
<b>Backing</b>	Antistatic T-paper/F-Paper
<b>Formats</b>	Discs, narrow belts, wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm



## RECOMMENDED FOR:

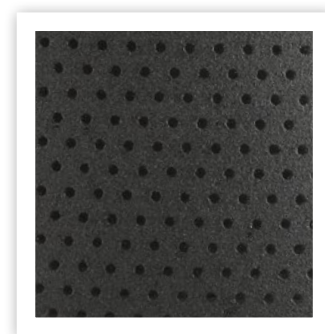
sanding of various woods, both softwoods and hardwoods, with narrow or wide belts. Grits 240–320 are also suitable for sanding of polyester paints

# ULTIMAX® BLACK

Premium long-life sanding belt combining a thick, high quality backing paper with new silicon carbide grain & patented selective coating technology – gives better, more consistent finishing quality even in the coarser grits. Highly resistant to breakage, folding and twisting. Antistatic, exceptional sanding quality from start to finish with reduced material waste. Surface cavities prevent clogging and reduce temperature of the sanding process while increasing surface pressure on each single sanding grain, helping the abrasive stay sharp for longer, contributing to a high removal rate and a lower scratch pattern.

## TECHNICALS COARSE GRITS FINE GRITS

TECHNICALS	COARSE GRITS	FINE GRITS
<b>Bonding</b>	Resin over resin/Antistatic	Stearate-coated resin over resin
<b>Grain</b>	Silicon carbide	Silicon carbide
<b>Coating</b>	Closed with selective coating	Semi-open with selective coating
<b>Colour</b>	Black/Black	Grey/Black
<b>Grit range</b>	80–220	240–1000
<b>Backing</b>	Antistatic T-paper	Antistatic E-paper
<b>Formats</b>	Wide and narrow belts	Wide and narrow belts
<b>Available widths</b>	30–1400 mm	30–1400 mm
<b>Available lengths</b>	360 mm–11000 mm	360 mm–11000 mm



## RECOMMENDED FOR:

sanding, intermediate sanding and pre-polish sanding of materials ranging from hard wood to soft wood, MDF, HDF and melamine surfaces. The strong and stabile Ultimax Black delivers consistently without need to adjust machine pressure over time.



# UNIMAX®

Unimax is a versatile, fully antistatic abrasive which retains its shape. This reduces dust accumulation and minimises clogging, helping keep the machine clean and increasing the lifespan of the abrasive.

## TECHNICAL SPECIFICATION

<b>Bonding</b>	Resin over resin/Antistatic
<b>Grain</b>	Aluminium oxide
<b>Coating</b>	Semi-open
<b>Colour</b>	Black
<b>Grit range</b>	P80, P100, P120, P150, P180, P220
<b>Backing</b>	Antistatic F-paper
<b>Formats</b>	Wide belts
<b>Available widths</b>	30–1400 mm
<b>Available lengths</b>	360–11000 mm



### RECOMMENDED FOR:

sanding of various woods, both softwoods and hardwoods; fully antistatic, does not overheat and allows for good dust collection

## Antistatic treatment


The electrostatic charge generated when sanding with belts can generate large quantities of dust. Using belts with an antistatic treatment prevents problems linked to dust and guarantees a better work environment. Reducing the electrostatic charge of sanding machine belts provides a range of benefits.

### BENEFITS:

- Dust-free sanding provides better quality finishes.
- The machine remains free of dust, simplifying maintenance.
- Less dust in the work environment, for a more pleasant environment with better air quality.

It is important to note that abrasives can have different levels of antistatic properties. Some products just use an antistatic material as the backer, while others also offer an antistatic bonding system. Dust issues can also be significantly reduced by using an effective dust-extraction system.

## Sequences and grits

 In general, the first belt is used for stock removal, while subsequent ones are used to create a smooth and even finish. The first sanding unit usually combines a steel or hard rubber roller with a coarse grit abrasive belt (P36–P100). This combination is ideal for efficient stock removal.

When it comes to creating a smooth and even finish, soft rubber rollers or pads are used with grits ranging from P120–P320. For intermediate sanding, grits from P320 to P800 are commonly used together with very soft rubber rollers or soft pads. The recommendation when choosing sequences of abrasives is to select belts that do not skip more than one grit. For example, the sequence P80–P120–P180 is appropriate, while a sequence of P60–P120–P220 can lead to problems with the finish and durability of the product.

### Grit recommendations

Grit size	Use
P24–P80	Stock removal, calibration
P100–P320	Wood sanding, intermediate sanding
P320–P1200	Intermediate sanding, finishing

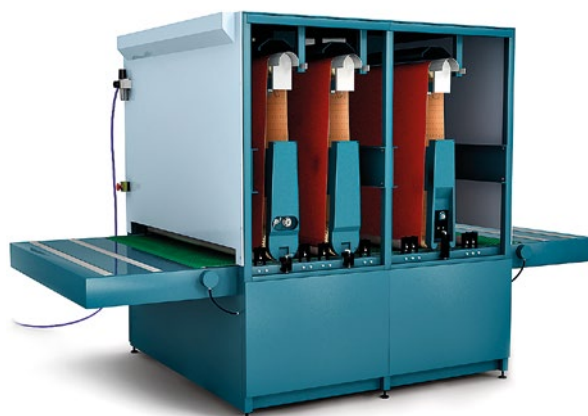
# Removal of material per unit

▶ With a **three-belt machine**, the starting point for stock removal can be as follows:

- Station 1 ~ 60%
- Station 2 ~ 30%
- Station 3 ~ 10%



▶ With a **two-belt machine**, the operation can be divided as follows:

- Station 1 ~ 75%
- Station 2 ~ 25%



To check the correctness of the setup, it is recommended to compare the wear of each belt with the others. If the adjustments have followed the requirements dictated by the grit sequence and the machine, the belts will have the same level of wear.

## Maximum removal

 <b>Unit with contact rollers</b>			 <b>Unit with pads</b>	
Grit		Removal (mm/inches)	Grit	Removal (mm/inches)
P36	Steel/hard rubber roller	< 1.00 / 0.04	P36	–
P40	Steel/hard rubber roller	< 0.80 / 0.03	P40	–
P60	Steel/hard rubber roller	< 0.60 / 0.02	P60	–
P80	Medium rubber roller	< 0.50 / 0.019	P80	< 0.30 / 0.012
P100	Medium rubber roller	< 0.30 / 0.012	P100	< 0.20 / 0.008
P120	Soft rubber roller	< 0.20 / 0.008	P120	< 0.15 / 0.006
P150	Soft rubber roller	< 0.10 / 0.004	P150	< 0.08 / 0.003
P180		–	P180	< 0.05 / 0.002
P220		–	P220	< 0.03 / 0.001
finer		–	finer	< 0.03 / 0.001

## Sanding speed

▶ The general rule is that higher speeds provide greater material removal rates. At the same time, however, higher speeds generate more heat and greater friction on the belt, reducing its useful lifetime. Different materials require different sanding speeds.

### Materials and recommended speeds

Material	Minimum speed	Maximum speed
Hardwood	15 m/s	24 m/s
MDF	15 m/s	21 m/s
Soft, resinous wood	12 m/s	18 m/s
Gloss lacquer	2 m/s	8 m/s
Synthetic materials	9 m/s	21 m/s
Veneered wood	18 m/s	27 m/s

*The values indicate the sanding speed.*

# Joints



The performance of belt joints is fundamental. Joints must, be as strong as the abrasive, without being too thick or too thin. The belt must also have the correct shape and size.

## Type of belt joints



### A-JOINT

» Mostly used for sanding belts made from paper, an A-joint is an overlapping joint without compensation on the sanding side, i.e. without interruption in the coating. It produces a uniform sanding belt thickness, even across the joint, and results in an even sanding finish without chatter marks.



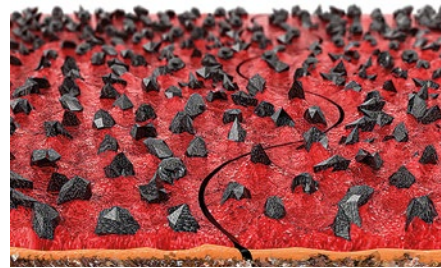
### B-JOINT

» The most common joint for sanding belts with cloth backing, the B-joint is an overlapping joint with compensation on the sanding side. This means that the joint area is free of abrasive material, and this allows the cloth to overlap without the joint having to be thicker than the rest of the belt. The B-joint is also suitable for special paper products, such as Mirka's Ultimax.



### T-JOINT

» Typically used for small cloth belts that require strength and flexibility, a T-joint is cut through the sanding belt without an overlap and the joint is attached with tape on the backing side.



### TS-JOINT

» A TS-joint is similar to a T-joint but is different in the way the connecting ends are cut. By using a TS-joint the hinge effect can be avoided. This joint type is most suitable for medium-grit belts and it is most common on cloth-backed belts, although TS-joints can also be found on paper-backed belt.



### TT-JOINT

» This is a special joint where the tape is applied on the sanding side making it suited to profile sanding with a sanding pad.



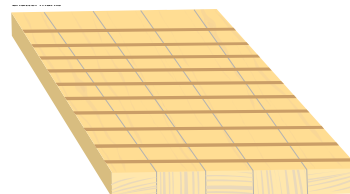


# Belt sanding

**POTENTIAL PROBLEMS** This section describes the typical issues which can be encountered when using abrasive belts. It is essential to understand the source of the issues in order to understand and correct the sanding process.

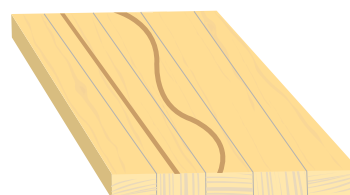
## CHATTER MARKS IN CROSS DIRECTION

- Check the condition of the belt
- Is the machine working correctly? In particular, a malfunctioning drum can cause chatter marks.
- Wrong type of sanding unit? A hard roller with a short sanding contact patch is more likely to result in chatter marks, compared to a soft sanding pad.



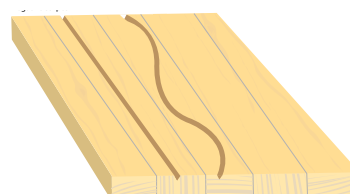
## POSITIVE STRIPES (stripes coming out of the wood piece)

- Are there narrow stripes in a pattern following the belt oscillation? These are normally caused by sharp objects in the workpiece which damage the abrasive. Change the belt or examine the workpieces for sharp objects.
- Are there wide straight stripes? This typically indicates a problem with the roller or pad. Clean the pad or have the roller calibrated.



## NEGATIVE STRIPES (grooves in the wood)

- Are there wide straight stripes? The most common problem is dust on the sanding pad. Clean the pad or, if necessary, change the graphite cloth.
- Are there narrow straight stripes? It is possible that small pieces of wood or sawdust clumps are stuck to the roller. Clean the machine.



### **BELT BREAKAGES:**

Broken belt?

- Check the oscillation of the machine and clean inside the machine.
- Check the storage of the belts.
- Avoid overly aggressive stock removal and avoid using clogged belts.
- Check the condition of the belt joint.

### **SHORT BELT LIFESPAN:**

Is the belt clogging?

- Avoid too much stock removal for each sanding unit – check machine settings.
- Make sure you are using the correct product and grit sequence.
- Make sure the cleaning system and the dust extraction is operating correctly.
- Use the whole belt width when sanding.

### **UNEVEN SURFACE:**

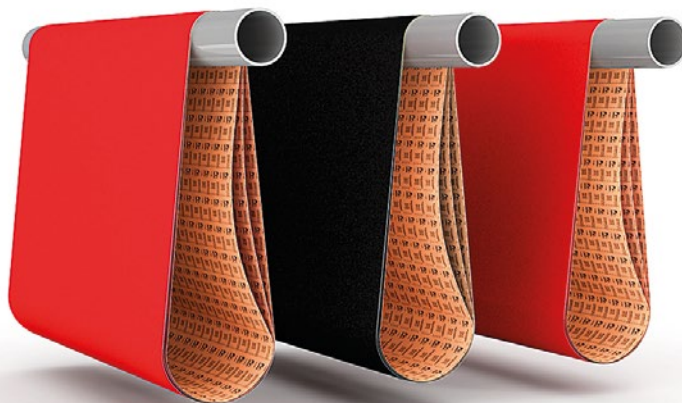
Does the surface feel uneven?

- Grit sequence not followed (too big steps between grits).
- Stock removal using a sanding unit with an overly soft roller or pad.

# BELT STORAGE

**BY SIMPLY FOLLOWING** some basic recommendations on wide belt storage, you can ensure that the belts remain undamaged and maintain their full working potential.

- Store belts in their original packaging until they are to be used.
- The belts can be hung horizontally prior to use in order to make handling easier.
- The correct storage temperature is 15–25°C.
- The recommended relative humidity is 35–60 per cent in order for the belts to maintain their shape.
- Wide belts should have even moisture over the whole width. Avoid keeping belts hanging close to a cold wall or a heat source. Do not expose to direct sunlight.



## Mirka

**Mirka Ltd** is one of the world's leading manufacturers of flexible abrasives and sanding systems. Founded in Finland in 1943, the company has built its success on a strategy based on innovation, feedback from operators, and continuous improvement.

Through its continuous research and development, it has developed revolutionary abrasive technologies and cutting-edge products, such as dust-free sanding systems. Solutions are built around operator requirements and designed to maximise the efficiency of the work cycles.

Mirka's employees play a key role in this, thanks to their exceptional knowledge and expertise and they are encouraged to challenge traditional notions and think innovatively.



## “Dedicated to the finish”

Mirka has always been inspired by the highest quality standards. It was the first company in the abrasives sector to obtain ISO 9001 (quality management system), OHSAS 18001 (workplace health and safety management) and ISO 14001 (environmental management system) certification.

These certifications bear witness to the great focus placed on total quality, the same that can be found in every abrasive product. This is why Mirka products are used in the factories of the largest automotive manufacturers and those of manufacturers of planes and trains, as well as

in shipyards building boats and luxury yachts, in woodworking and processing companies, in the furniture, building, leather goods sectors and many more besides.

## Worldwide distribution, local support

Mirka is one of the few abrasives manufacturers which operates on an international scale. More than 95% of its products are exported to over 80 countries, through a network made up of 18 company branches and more than 50 importers.

Mirka's efficient logistics solutions guarantee a fast and reliable service and its network of dealers, located across Europe, the USA, Latin America, Russia, India, China and Singapore, guarantees close contact and constant support to customers.

Mirka Italia is the company branch engaged in bringing the philosophy, mission and products of the parent company to the Italian market, with a team of expert technicians who are always ready to offer all the support required for surface preparation.

## Environmental sustainability

Mirka has always been engaged in research and technology, and is also highly attentive to environmental matters. Environmental protection is at the top of our priorities, like for our customers. For example: the NET system was developed with the goal of improving the work environment and protecting

human health. But our responsibilities go beyond this: in our production cycles we are committed to conserving energy and raw materials, reducing waste and limiting the use of certain chemical products. We work to offer the best products with the highest level of respect for the environment.







**Mirka Ltd**  
Finland

**Brazil** Mirka Brasil Ltda.

**Belgium** Mirka Belgium Logistics NV

**Canada** Mirka Canada Inc.

**China** Mirka Trading Shanghai Co., Ltd

**Finland & Baltics** Mirka Ltd

**France** Mirka France Sarl

**Germany** Mirka GmbH

**India** Mirka India Pvt Ltd

**Italy** Mirka Italia s.r.l., Mirka Superabrasives S.p.A

**Mexico** Mirka Mexicana S.A. de C.V.

**Netherlands** Mirka Benelux B.V

**Poland** Mirka Poland Sp. z o.o

**Singapore** Mirka Asia Pacific Pte Ltd

**Spain** KWH Mirka Ibérica S.A.U.

**Sweden** Mirka Scandinavia AB

**Turkey** Mirka Turkey Zimpara Ltd Şirketi

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