



Furniture industry

Professional abrasive solutions for solid wood and wood-based materials





Panel industry

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sia Abrasives



sia Abrasives – Your abrasives specialist

We are passionate about professional abrasive solutions for industry and trades.

Our clearly defined abrasive processes for all materials and applications mean that we can always find the right approach to achieving the perfect surface finish.

As one of the world's largest manufacturers of high-quality abrasive products, we develop and produce abrasives with a wide variety of shapes, dimensions and specifications.

Our aim is to be your key to a perfect surface





Solutions for professionals

Efficient and economical

- Abrasive solutions from sia Abrasives are used across a variety of industries.
- Comprehensive sanding process analyses result in fast and cost-saving applications.
- The productivity of the work process is the ultimate goal.



Top quality

Innovative technology leader

- The latest production methods and technologies guarantee the highest quality.
- Processes with ultrasonic monitoring ensure the continually high level of quality.
- Standardised testing methods guarantee the utmost product safety.



Professional partner

Technically versed and experienced

- From professionals for professionals: Optimum consultation to help you achieve great sanding results.
- Our expert advisers have a lot of technical experience and will find the perfect abrasive solution for you.
- There for you, wherever you are. Represented globally in over 80 countries.



Perfect surfaces

Finish by sia Abrasives

- A perfect surface finish offers protection, enhances design and aesthetic aspects or increases functionality.
- We support you in getting the best out of every surface.
- Your specifications are our goal.



Experienced specialist

Skilled and proven

- Abrasives are our core competence.
- We offer a full range of products for any sanding application.
- We are a manufacturer with more than 140 years of experience!



More information

Industrial know-how

As a leading international manufacturer of high-quality abrasives with over 140 years of experience and innovative development, we know our customers' processes inside out and can provide the right abrasive solution for every material.

sia Abrasives – Perfect abrasive solutions

We are your abrasives specialists

At sia Abrasives, we are experienced experts when it comes to wood sanding. Our roots lie in the manufacturing of abrasives for solid wood and wood-based materials.

We have an impressive and extensive product range for surface treatment of solid wood, wood-based and solid surface materials, paints and lacquers. The various abrasive formats – from discs and wide belt and cross belts to foam sanding pads in a range of grades – exceed all expectations with respect to mechanical load, surface quality and service life.

We are your abrasives specialists. See for yourself!

Panel industry



Our expertise covers the needs of industrial manufacturers of wood-based, plywood, solid wood and mineral panels.

Furniture production



Abrasive solutions for producing custom-made furniture. For the surface treatment of solid wood, wood-based and solid surface materials, paints and lacquers.

More information



Our solutions



Improve your abrasive process

Optimise your productivity and cost-efficiency

Advanced surface treatment of side panels, covers, fronts and shelves calls for experience, the right technology and a perfectly coordinated system of abrasives.

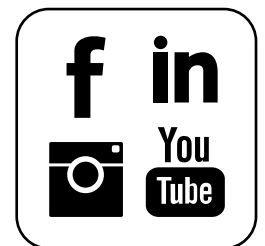
We support you in:

- Achieving consistent surface quality
- Speeding up manufacturing processes
- Using abrasive products optimally
- Perfecting surface quality
- Minimising machine downtimes

sia-abrasives.com



Follow us



Sanding / Applications



Calibrating	Fine sanding	Keying	Lacquer intermediate sanding	Profile sanding	Polishing preparation	Sanding off	Manual sanding	Portable machine sanding
		•	•		•			
	•		•					
•	•	•				•		
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Overview of the most important sanding applications

P40

P60



Sanding off

Mechanical removal of coatings and impurities

Grit P40 –



Calibrating

A wide belt sanding process for reshaping workpieces to a defined thickness

Grit



Fine sanding

Sanding of solid wood, veneers, MDF, etc., as the final step before surface treatment



Profile sanding

Sanding of profiled workpieces



Keying

Roughing of priming foil and old coatings as preparation for recoating



Lacquer intermediate sanding

Sanding of lacquers, priming foils or similar coatings

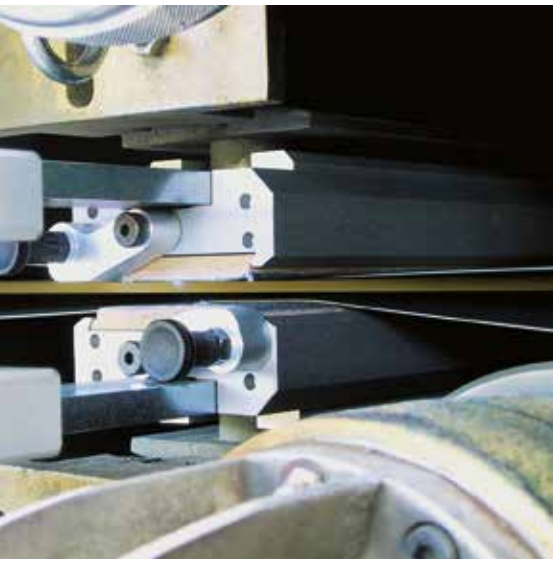


Polishing preparation

The finest sanding process as the last step before polishing



Panel industry





Our strengths for top performance and finish



- ▶ **Process-optimised backings**
for efficient calibration, medium and fine sanding
- ▶ **Consistent spread**
for a homogeneous and consistent-quality sanding finish
- ▶ **Precise belt joints**
for low-noise belt running without chatter marks

Product search

Panel industry



The right choice of product for the process

Chipboard



Calibrating

Grit P36 – P80

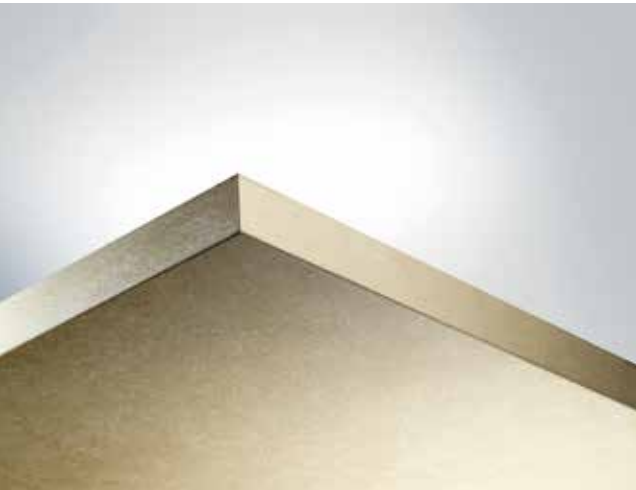


Fine sanding

Grit P100 – P220



MDF / HDF



Calibrating

Grit P36 – P80



Fine sanding

Grit P100 – P220



Plywood / solid wood



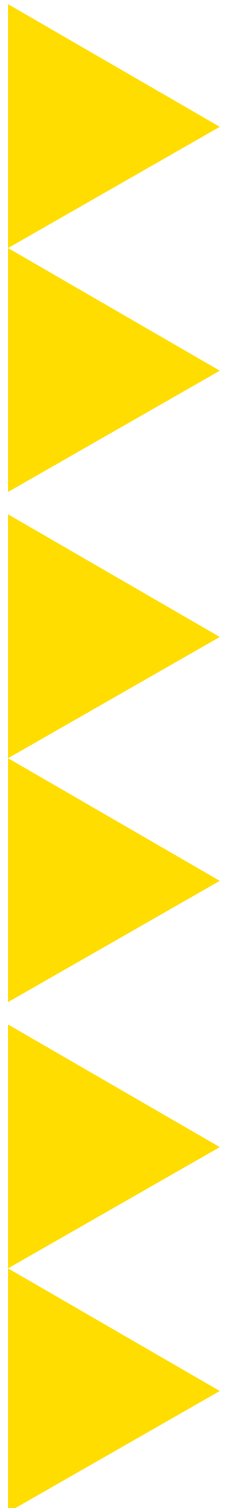
Calibrating

Grit P36 – P80



Fine sanding

Grit P100 – P220





Perfect abrasive solution

Recommendation

3708 siapan ★★★★★
For very long periods of use



3708 siapan ★★★★★
For the highest surface quality



3708 siapan ★★★★★
For very long periods of use



3708 siapan ★★★★★
For the highest surface quality



2918 siapan ★★★★★



2918 siapan ★★★★★



Alternative

2728 siapan ★★★★★☆
For the toughest demands



2728 siapan ★★★★★☆
High-quality, all-round product



2728 siapan ★★★★★☆
For the toughest demands

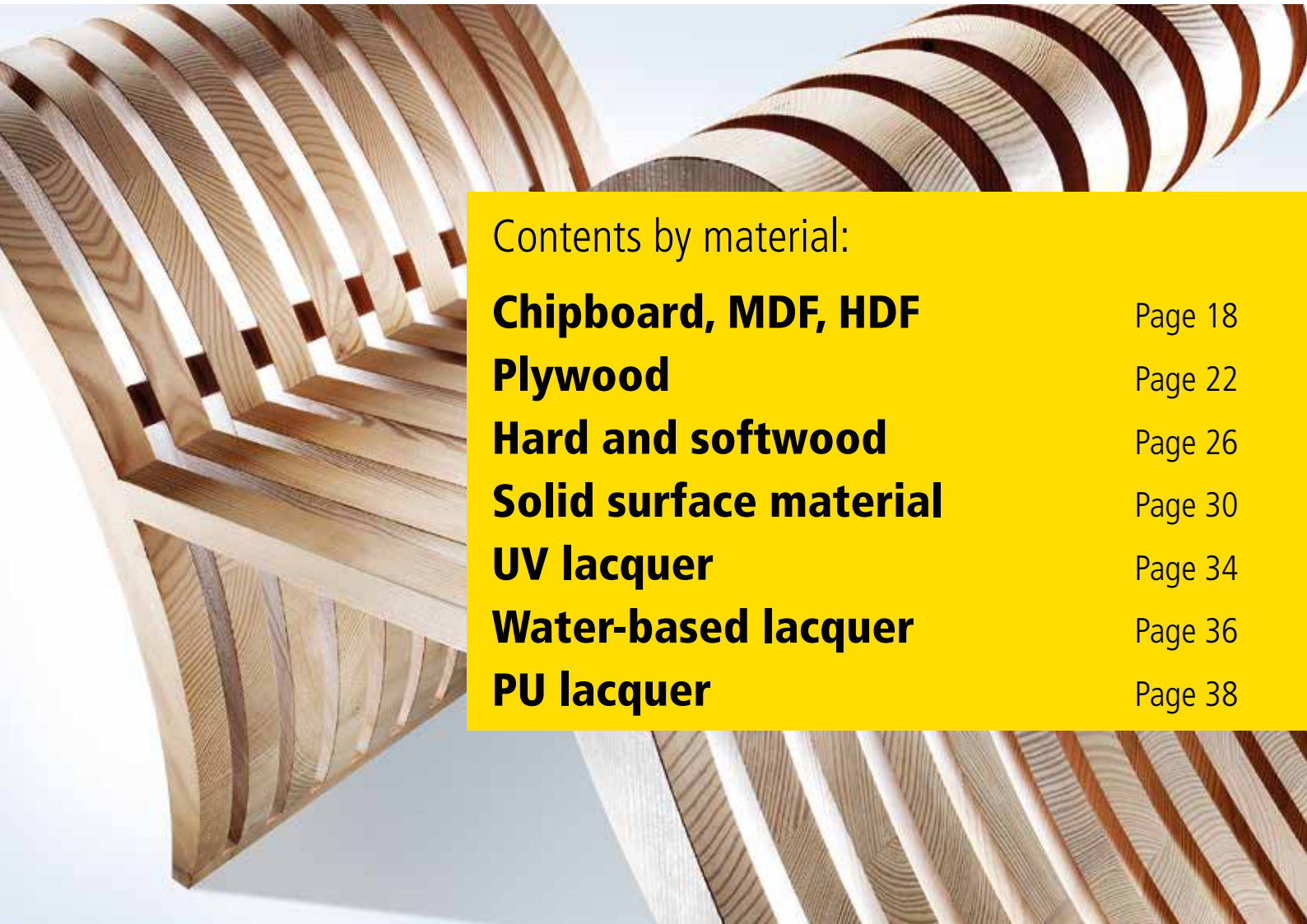


2728 siapan ★★★★★☆
High-quality, all-round product



Furniture production





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PU lacquer

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Product search

Chipboard, MDF, HDF



The right choice of product for the process

		Calibrating Grit P40 – P120	
		Sanding off Grit P40 – P80	
		Fine sanding Grit P120 – P320	
 		Profile sanding Grit P120 – P240	
		Keying Grit P80 – P320	



Perfect abrasive solution

Recommendation

1749 siaral f



1919 siawood



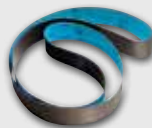
Sanding off materials that clog very easily



1749 siaral f



2747 siatur



1749 siaral f



Alternative

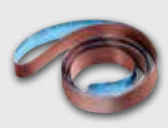
2920 siawood x



Very high strains



2936 siatur jj



Sanding recommendation

Chipboard, MDF, HDF



Use

- Calibrating the panel before covering
- Fine sanding before lacquering
- Fine sanding profiled edges

Tips

- Fibreboard is most efficiently worked using belts with silicon carbide types of abrasive

Calibrating

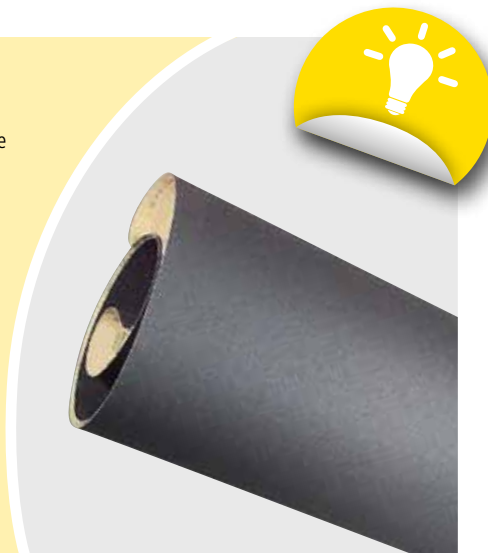
- Work with a hard contact roller

Lacquer preparation








- Do not skip more than one grit size in the sanding sequence
- Always use an aggressive abrasive. Blunt grit presses the wood fibres together instead of sanding them off
- Pad belt sanding creates a finer surface finish than abrasive contact belt sanding
- The graphite coating on the sanding pad must not be damaged
- Use less contact pressure and choose a suitable cutting speed
- The more glossy the paint, the finer the sanding must be

Expert tip:








1749 sjaral distinguishes itself with its silicon carbide grit. The grit does not break when it comes into contact with foreign objects, which happens with MDF and chipboard. This results in a long lifetime.



Cutting speeds

	Contact belt	Padded belt	Long/cross belt	Edge belt	Profile belt	Profile wheel	Hand sander
							
Chipboard	20 – 30 m/s 66 – 98 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 22 m/s 33 – 72 ft/s	12 – 18 m/s 39 – 59 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 15 m/s 33 – 49 ft/s	5 – 10 mm stroke Setting 5 – 6
MDF/HDF	20 – 30 m/s 66 – 98 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 22 m/s 33 – 72 ft/s	12 – 18 m/s 39 – 59 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 15 m/s 33 – 49 ft/s	5 – 10 mm stroke Setting 5 – 6

Feed rates

	Contact belt	Padded belt	Long/cross belt	Edge belt	Profile belt	Profile wheel	Hand sander
							
Chipboard	5 – 10 m/min 16 – 33 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	10 – 20 m/min 33 – 66 ft/min	8 – 10 m/min 26 – 33 ft/min	
MDF/HDF	5 – 10 m/min 16 – 33 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	10 – 20 m/min 33 – 66 ft/min	8 – 10 m/min 26 – 33 ft/min	

Maximum removal rates

Contact belt sanding				Pad belt sanding		
Grit	Roller	Stock removal in mm	Stock removal in inches	Grit	Stock removal in mm	Stock removal in inches
P036	Steel/hard rubber roller	< 1.00	< 0.04	P036	-	-
P040	Steel/hard rubber roller	< 0.80	< 0.03	P040	-	-
P060	Steel/hard rubber roller	< 0.60	< 0.024	P060	-	-
P080	Medium-hard rubber roller	< 0.40	< 0.016	P080	< 0.30	< 0.012
P100	Medium-hard 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	< 0.10	< 0.004
P180		-	-	P180	< 0.05	< 0.002
P220		-	-	P220	< 0.03	< 0.001
Finer		-	-	Finer	< 0.03	< 0.001

Product search
Plywood

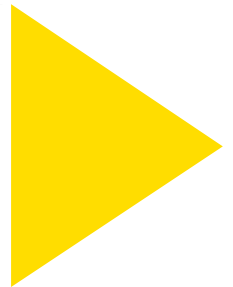


The right choice of product for the process



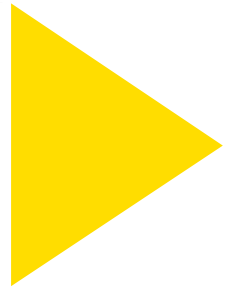
Calibrating

Grit P40 – P120



Fine sanding

Grit P120 – P220





Perfect abrasive solution

Recommendation

1919 siawood ★★★★★
High strain



Alternative

2920 siawood x ★★★★★☆
Very high strain



1919 siawood ★★★★★



Sanding recommendation

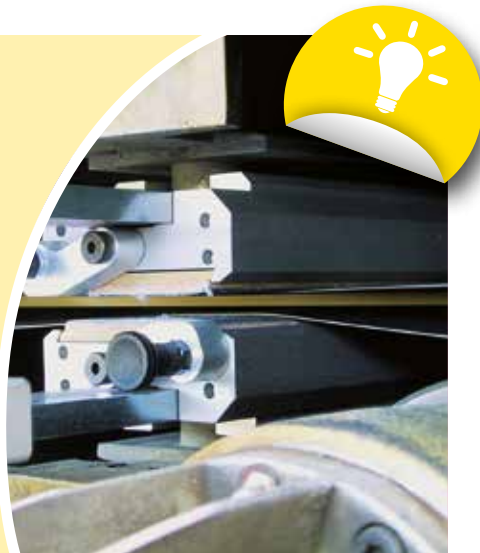
Plywood










- Use**
- Calibration and sanding out scratches
 - Fine sanding before lacquering
- Tips**
- Always choose the abrasive to suit the type of wood in the top layer
- Calibrating**
- Work with a hard contact roller
- Lacquer preparation**
- Do not skip more than one grit size in the sanding sequence
 - Always use an aggressive abrasive. Blunt grit presses the wood fibres together instead of sanding them off
 - Pad belt sanding creates a finer surface finish than abrasive contact belt sanding
 - Ensure the sanding platen is intact
 - Use less contact pressure and choose a suitable cutting speed
 - The more glossy the paint, the finer the sanding must be
 - Always sand in the direction of the grain for the last pass before lacquering

Expert tip:








Plywood parts are less homogeneous compared with chipboard. This is why we recommend using a soft support material and reducing the belt speed in the range of 10–20% when using the sanding platen. In this way, any recesses and unevenness can be sanded out better.



Cutting speeds

	Contact belt	Padded belt	Long/cross belt	Edge belt	Profile belt	Profile wheel	Hand sander
							
Plywood	20 – 30 m/s 66 – 98 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 22 m/s 33 – 72 ft/s	12 – 18 m/s 39 – 59 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 15 m/s 33 – 49 ft/s	5 – 10 mm stroke Setting 5 – 6

Feed rates

	Contact belt	Padded belt	Long/cross belt	Edge belt	Profile belt	Profile wheel	Hand sander
							
Plywood	5 – 10 m/min 16 – 33 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	10 – 20 m/min 33 – 66 ft/min	8 – 10 m/min 26 – 33 ft/min	

Maximum removal rates

Contact belt sanding				Pad belt sanding		
Grit	Roller	Stock removal in mm	Stock removal in inches	Grit	Stock removal in mm	Stock removal in inches
P036	Steel/hard rubber roller	< 1.00	< 0.04	P036	-	-
P040	Steel/hard rubber roller	< 0.80	< 0.03	P040	-	-
P060	Steel/hard rubber roller	< 0.60	< 0.024	P060	-	-
P080	Medium-hard rubber roller	< 0.40	< 0.016	P080	< 0.30	< 0.012
P100	Medium-hard 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	< 0.10	< 0.004
P180		-	-	P180	< 0.05	< 0.002
P220		-	-	P220	< 0.03	< 0.001
Finer		-	-	Finer	< 0.03	< 0.001

Product search

Hard and softwood

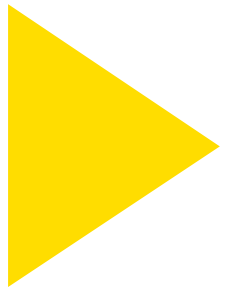


The right choice of product for the process



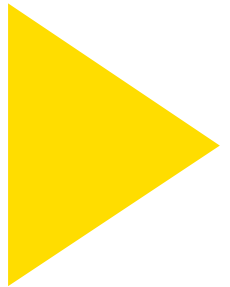
Calibrating

Grit P40 – P120



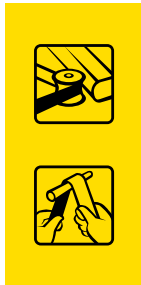
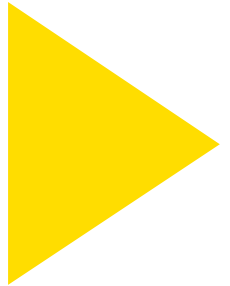
Sanding off

Grit P40 – P80



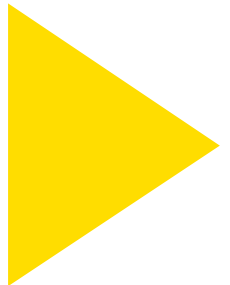
Fine sanding

Grit P120 – P320



Profile sanding

Grit P120 – P240





Perfect abrasive solution

Recommendation

1919 siawood ★★★★★
High strain



1919 siawood ★★★★★



1920 siawood ★★★★★
Excellent on hardwood



2951 siatur h ★★★★★
Very flexible for radii smaller than 5 mm



Alternative

2920 siawood x ★★★★★☆
Very high strain



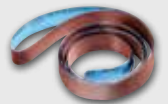
2920 siawood x ★★★★★☆



1919 siawood ★★★★★
Excellent on softwood



2936 siatur jj ★★★★★☆
Very flexible for radii greater than 5 mm



Sanding recommendation

Hard and softwood



Use for sanding

- Sanding irregular areas and taking out planing marks
- Calibrate to desired thickness
- Work with a hard contact roller
- Cloth belts are sturdier and last longer in heavy use
- Aluminium oxide grit produces the best results on solid wood

Tips

Cleaning

- Sanding off glue on joints
- Sanding down breakthroughs of glue and excessive filler

Tips

- Glue and adhesives quickly clog sanding belts. That is why it is better to use less expensive cross belts instead of wide belts

Lacquering preparation

- Final sanding and cutting back of wood fibres before lacquering
- Sanding out dirt, pencil marks, scratches and the wood's own oil, which can reduce paint adhesion
- Always follow the recommendations of the lacquer supplier to determine the last grit size before lacquering
- Do not skip more than one grit size in the sanding sequence
- Always use an aggressive abrasive
 - Blunt grit presses the wood fibres together instead of sanding them off
- Pad belt sanding creates a finer and higher-grade surface finish than contact belt sanding (with roller)
- The graphite coating on the sanding pad must not be damaged
- Use less contact pressure and choose a suitable cutting speed
- The more glossy the paint, the finer the sanding must be
- In the case of precious woods (fine-pored hardwood), sand using 1–2 grit sizes finer than usual
- The final sanding pass prior to varnishing must always be made in the direction of the grain to avoid crosswise scratches becoming visible after varnishing
 - Therefore, always cross-sand assembled work pieces (mitres)
- Aluminium oxide grit produces the best results on solid wood and veneer
 - Silicon carbide can be used in the last sanding application before lacquering for a very fine surface finish

Tips

Expert tip:

For transom applications, the abrasive scratches are more visible than in the direction of the grain. Owing to the consistency of the grit and the coating pattern, the 1749 series offers the best results











Expert tip:









Long-stranded wood types
A cross belt trims the fibres, producing an improved sanding result. The lifetime of the following sanding belts can therefore be significantly increased. Fine sanding at the end of the process should always be carried out in the direction of the grain.



Cutting speeds

	Contact belt	Padded belt	Long/cross belt	Edge belt	Manual belt	Profile belt	Profile wheel	Hand sander
								
Solid wood	20 – 30 m/s 66 – 98 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 22 m/s 33 – 72 ft/s	12 – 18 m/s 39 – 58 ft/s	3 – 8 m/s 10 – 36 ft/s	10 – 22 m/s 33 – 72 ft/s	10 – 15 m/s 33 – 49 ft/s	5 – 10 mm stroke Setting 5 – 6

Feed rates

	Contact belt	Padded belt	Long/cross belt	Edge belt	Manual belt	Profile belt	Profile wheel	Hand sander
								
Solid wood	5 – 10 m/min 16 – 33 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min	8 – 15 m/min 26 – 49 ft/min		10 – 20 m/min 33 – 66 ft/min	8 – 10 m/min 26 – 33 ft/min	

Maximum removal rates

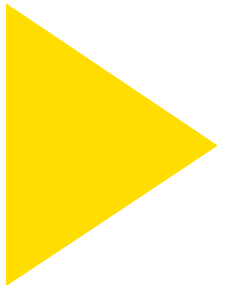
Contact belt sanding				Pad belt sanding		
Grit	Roller	Stock removal in mm	Stock removal in inches	Grit	Stock removal in mm	Stock removal in inches
P036	Steel/hard rubber roller	< 1.00	< 0.04	P036	-	-
P040	Steel/hard rubber roller	< 0.80	< 0.03	P040	-	-
P060	Steel/hard rubber roller	< 0.60	< 0.024	P060	-	-
P080	Medium-hard rubber roller	< 0.40	< 0.016	P080	< 0.30	< 0.012
P100	Medium-hard 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	< 0.10	< 0.004
P180		-	-	P180	< 0.05	< 0.002
P220		-	-	P220	< 0.03	< 0.001
Finer		-	-	Finer	< 0.03	< 0.001

Product search

Solid surface material



The right choice of product for the process

		<p>Calibrating Grit P40 – P120</p>	
		<p>Sanding off Grit P40 – P80</p>	
		<p>Fine sanding Grit P120 – P320</p>	
 		<p>Profile sanding Grit P120 – P240</p>	
		<p>Polishing preparation Grit P600 – P1500</p>	



Perfect abrasive solution

Recommendation

1920 siawood ★★★★★
High strain



1920 siawood ★★★★★



1920 siawood ★★★★★



2951 siatur h ★★★★★
Very flexible for radii smaller than 5 mm



1918 sialac ★★★★★

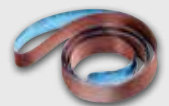


Alternative

2920 siawood x ★★★★★☆
Very high strain



2936 siatur jj ★★★★★
Very flexible for radii greater than 5 mm



1950 siaspeed ★★★★★☆



Sanding recommendation

Solid surface materials



Use

- Calibrating, fine sanding and preparation for polishing

Tips









- Work with a hard contact roller and with a hard platen
- Sanding belts with aluminium oxide grit are ideal in terms of lifetime and surface quality
- The feed rate should be selected so that it is significantly slower than with solid wood
- Remove any remaining glue beforehand with a mortise chisel or router. The belts clog prematurely due to the glue remnants. If shiny spots/streaks appear, this indicates that the abrasive has reached the end of its lifetime
- Do not skip a grit size (as is common for wood sanding, for example)
- For grit sizes of P800 or greater, we recommend using a cross belt unit
- For fine sanding, use the cross belt and wide belt unit alternately to achieve an immaculate finish

Expert tip:









The 1920 siawood series and for finer grit sizes the 1918 sialac are ideal thanks to the high-quality aluminium oxide grit for machine sanding mineral materials.



Cutting speeds

	Contact belt	Padded belt	Long/cross belt	Edge belt	Manual belt	Profile belt	Profile wheel	Hand sander
								
Solid surface materials	20 – 30 m/s 66 – 98 ft/s	5 – 18 m/s 16 – 59 ft/s	4 – 18 m/s 13 – 59 ft/s	12 – 18 m/s 39 – 58 ft/s	3 – 8 m/s 10 – 26 ft/s	5 – 18 m/s 16 – 59 ft/s	4 – 12 m/s 13 – 39 ft/s	3 – 5 mm stroke Setting 5 – 6

Feed rates

	Contact belt	Padded belt	Long/cross belt	Edge belt	Manual belt	Profile belt	Profile wheel	Hand sander
								
Solid surface materials	5 m/min 16 ft/min	5 m/min 16 ft/min	5 m/min 16 ft/min	5 m/min 16 ft/min		5 m/min 16 ft/min	5 m/min 16 ft/min	



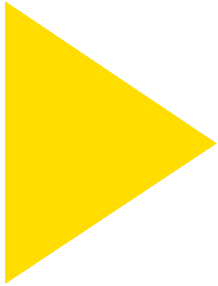


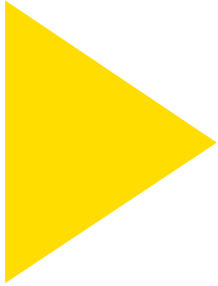



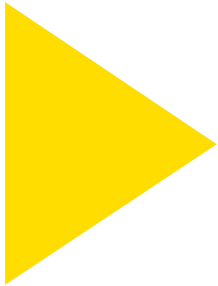


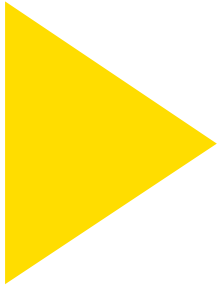


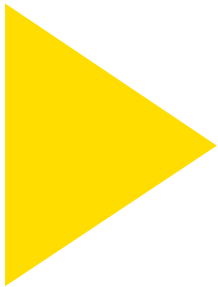
Maximum removal rates

Contact belt sanding				Pad belt sanding		
Grit	Roller	Removal in mm	Stock removal in inches	Grit	Stock removal in mm	Stock removal in inches
P036	Steel/hard rubber roller	< 0.50	< 0.02	P036	–	–
P040	Steel/hard rubber roller	< 0.40	< 0.015	P040	–	–
P060	Steel/hard rubber roller	< 0.30	< 0.012	P060	–	–
P080	Medium-hard rubber roller	< 0.20	< 0.008	P080	< 0.15	< 0.006
P100	Medium-hard rubber roller	< 0.15	< 0.006	P100	< 0.10	< 0.004
P120	Soft rubber roller	< 0.10	< 0.004	P120	< 0.07	< 0.003
P150	Soft rubber roller	< 0.05	< 0.002	P150	< 0.05	< 0.002
P180		–	–	P180	< 0.03	< 0.001
P220		–	–	P220	< 0.02	< 0.001
Finer		–	–	Finer	< 0.02	< 0.001

Product search
UV lacquer



The right choice of product for the process

		Sanding off Grit P40 – P80	
		Lacquer intermediate sanding Grit P240 – P600	
 		Profile sanding Grit P120 – P240	
		Polishing preparation Grit P600 – P1500	
		Keying Grit P180 – P320	



Perfect abrasive solution

Recommendation

1919 siawood ★★★★★



1730 sialac ★★★★★



2951 siatur h ★★★★★



1950 siaspeed ★★★★★



1730 sialac ★★★★★

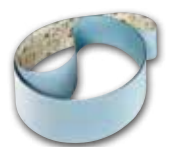


Alternative

2747 siatur ★★★★★☆
Best surface



1719 sialac ★★★★★



Product search

Water-based lacquer

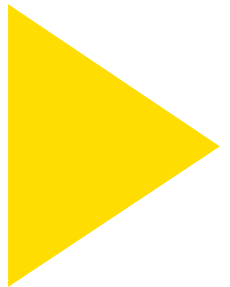


The right choice of product for the process



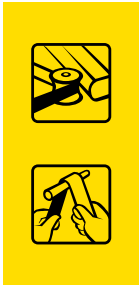
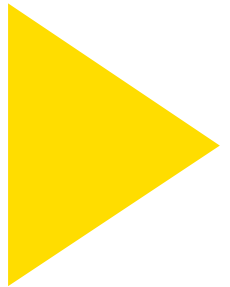
Sanding off

Grit P40 – P80



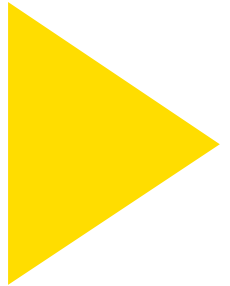
Lacquer intermediate sanding

Grit P240 – P600



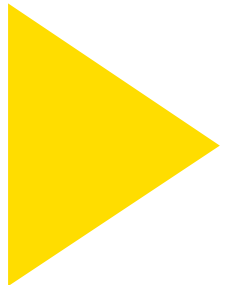
Profile sanding

Grit P120 – P240



Keying

Grit P180 – P320





Perfect abrasive solution

Recommendation

1919 siawood



1719 sialac

Best surface



Alternative

1918 sialac

Almost no clogging



2951 siatur h

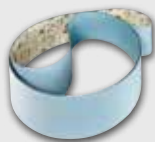


2747 siatur

For a particularly fine finish





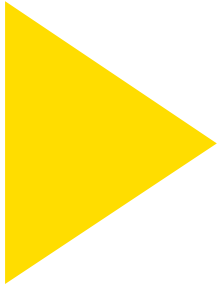


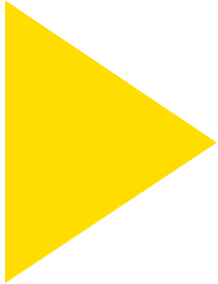



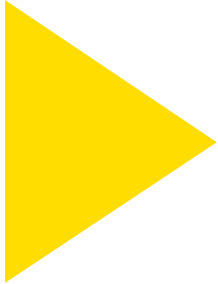


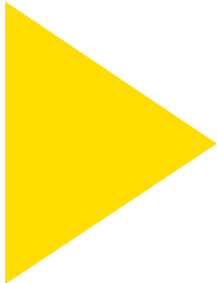


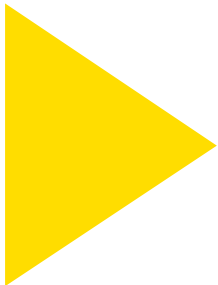
1719 sialac



Product search
PU lacquer



The right choice of product for the process

		Sanding off Grit P40 – P80	
		Lacquer intermediate sanding Grit P240 – P600	
 		Profile sanding Grit P120 – P240	
		Polishing preparation Grit P600 – P1500	
		Keying Grit P240 – P320	



Perfect abrasive solution

Recommendation

Alternative

1919 siawood ★★★★★



1918 sialac ★★★★★



2951 siatur h ★★★★★



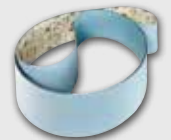
2747 siatur ★★★★★☆
Best surface



1950 siaspeed ★★★★★



1719 sialac ★★★★★
For use with lacquers that clog very easily



1918 sialac ★★★★★



Sanding recommendation

UV lacquer, water-based lacquer and PU lacquer



Intermediate varnish sanding

- Use**
- Sanding back protruding wood fibres after the first coat of varnish
 - Increasing varnish adhesion
 - Sanding out varnishing faults such as orange peel, dust inclusions and unevenness

- Tips**
- Always follow the recommendations of the varnish manufacturer
 - The use of an efficient dust-extraction system reduces the sanding dust on the workpiece and prevents premature clogging of the abrasive
 - Using only as much pressure as necessary reduces overheating of the varnish to a minimum and thus significantly improves the surface quality of the workpiece and considerably prolongs abrasive life

- Portable machine sanding**
- Choose a sander with a short stroke; 2–3 mm is ideal because sanders with a longer stroke remove too much varnish
 - If possible, use a sander with a soft base plate, e.g. an orbital sander with a soft or extra-soft pad. Hard base plates are too aggressive and remove too much material
 - Reduce the sanding speed in the case of varnishes with an increased tendency to clog (stage 3–4 of 6)





- Wide belt sander**
- Pad belt sanding creates a more even and finer surface finish than contact belt sanding
 - Sanders with cleaning systems such as a dust extractor are preferable in order to prolong the life of sanding belts
 - Adjust the feed speed (between 10–18 m/min or 33–59 ft/min) to suit the operation and the varnish in order to prevent unnecessary varnish surface heating
 - Cross-sanding is recommended in order to achieve the most even finish possible (long/cross belt)

Repairing varnish faults

- Use**
- Sanding off varnish drips, orange peel and dust inclusions





- Tips**
- Small areas can be finished using a hand sander (eccentric or orbital sander)
 - Liners and abrasives with soft backings take on the surface structure and do not provide the required result
 - Large areas are best sanded using a wide belt sander
 - Caution with pickled surfaces

Cutting speeds

	Padded belt	Long/cross belt	Profile belt	Hand sander
				
Varnish	1 – 4 m/s * 3 – 13 ft/s *	1 – 4 m/s * 3 – 13 ft/s *	3 – 6 m/s 10 – 20 ft/s	2 – 3 mm stroke Setting 3–4

* High cutting speeds for the intermediate sanding of varnish (from 8–12 m/s or 26–39 ft/s) are generally only for saturated polyester varnishes

Feed rates

	Padded belt	Long/cross belt	Profile belt	Hand sander
				
Varnish	10 – 18 m/min 33 – 59 ft/min	10 – 18 m/min 33 – 59 ft/min	10 – 20 m/min 33 – 66 ft/min	

Maximum removal rates

Contact belt sanding

			
	Grit	Stock removal in mm	Stock removal in inches
	P180	< 0.05	< 0.002
	P220	< 0.03	< 0.001
	Finer	< 0.03	< 0.001

System solution











Polishing preparation



Belt sanding

1	2 Intermediate sanding	3 Intermediate sanding	4	5 Intermediate sanding	6	7 Intermediate sanding
Primer coat/priming foil	 ★★★★★ 1918 sialac Grit P220 	  ★★★★★ 1918 sialac Grit P280 	Application of primer filler	 ★★★★★ 1918 sialac Grit P320 	Application of primer filler	  ★★★★★ 1918 sialac Grit P500 

Polishing

Dark colour shades		Lamb's wool disc + siachrome cut   	Polishing disc, black + siachrome finish   
Light colour shades		Lamb's wool disc + siachrome cut   	Polishing disc, yellow + siachrome finish   



8

8

Top coat application 3x wet-on-wet

9 Intermediate sanding



1719 sialac
Grit P800



10 Polishing preparation



1950 siaspeed
Grit P1200



Portable machine sanding

11 Polishing preparation



1950 siaspeed
Grit P1200



12 Polishing preparation



7940 siaair
Grit P3000
+ siachrome Magic



For a perfect surface

For a perfect surface

siachrome Pearl +
application pressure



Products





1719 sialac



Product profile

Grit type:	Silicon carbide
Grit range:	220-800
Backing:	E-wt paper
Coating:	Electrostatic open
Bonding:	Resin over resin
Special coating:	Stearate
Equipment:	TopTec

The best surface quality with soft lacquers – The highest surface quality is achieved with 1719 sialac. The additional stearate coating results in longer durability with the same sanding result.

Advantages

- Perfect surfaces thanks to TopTec
- Soft construction and flexible bonding ensure finest-quality finishes
- Low clogging thanks to open coating
- Flexible, adaptable e-wt paper backing

Applications

- Keying of primers
- Fine sanding of primer filler
- Intermediate sanding of varnishes

Materials

Water-based lacquer; PU lacquer; NC lacquer

Conversion forms



Application



1730 sialac



Product profile

Grit type:	Silicon carbide
Grit range:	180-600
Backing:	E-wt paper
Coating:	Electrostatic open
Bonding:	Resin over resin
Equipment:	TopTec, open coating

For a longer lifetime in industrial lacquer sanding – 1730 sialac stands for long lifetime with constant quality. Suitable especially for hard varnishes in industrial use.

Advantages

- Superior surface quality when sanding on industrial paint systems
- Consistent performance throughout the life of the product
- Perfect surfaces thanks to TopTec

Applications

- Intermediate sanding on industrial varnishing systems
- Final sanding as preparation for painting

Materials

UV lacquer; PU lacquer; melamine sheet

Conversion forms



Application



1749 sialar f



Product profile

Grit type:	Silicon carbide
Grit range:	36-400
Backing:	F-wt paper
Coating:	Closed
Bonding:	Resin over resin
Equipment:	TopTec

Number one for belt sanding MDF, HDF and chipboard – A specialist abrasive for keying MDF, HDF and chipboard, 1749 sialar f not only has a long lifetime, it also produces a high-quality surface finish.

Advantages

- Long life when sanding MDF boards and HDF boards and chipboard
- Perfect surfaces thanks to TopTec
- Dust-free process: Antistatic construction minimises dust build-up on the belt, workpiece and machinery
- Best surface quality
- Very good finish on solid wood and veneer

Applications

- Keying of edges and surfaces on MDF board, HDF board and chipboard
- Calibrating
- Final sanding as preparation for painting
- Final sanding on transom and high-quality veneers
- Intermediate sanding of varnishes

Materials

Chipboard; MDF board; softwood; hardwood; plastic; bodyfiller; primer filler; PU lacquer; UP lacquer; UV lacquer; stone; mineral fibreboard

Conversion forms



Application



1918 sialac



Product profile

Grit type:	Aluminium oxide
Grit range:	240-600
Backing:	E-wt paper
Coating:	Electrostatic open
Bonding:	Resin over resin
Technology:	TopTec
Special coating:	Stearate

The lacquer sanding belt for high material removal rate and long lifetime. Unlike most other lacquer sanding belts, 1918 sialac has aluminium oxide grains to ensure that especially high removal rates are achieved. Thanks to the stearate coating, the lifetime of the belt is noticeably increased.

Advantages

- Perfect surfaces thanks to TopTec
- Low clogging thanks to open coating
- High stock removal rates and excellent finish

Applications

- Keying and matting of primers and melamine sheets
- Intermediate sanding of varnishes
- Fine sanding before lacquering

Materials

PU lacquer; melamine sheet; UP lacquer; solid surface materials; solid wood

Conversion forms



Application



1919 siawood



Product profile

Grit type:	Aluminium oxide
Grit range:	36-220
Backing:	F-wt paper
Coating:	Electrostatic open
Bonding:	Resin over resin

As a universal all-round product, 1919 siawood with its outstanding properties in wood and lacquer applications meets the highest demands of the woodworking industry and trade.

Advantages

- Premium product for the highest quality demands in stationary wood sanding
- Minimal clogging thanks to modern coating technology
- Outstanding performance and long life
- Very high stock removal rates and excellent finish
- Backing with very high stability and rigidity
- Lower sanding costs due to longer lifetime and fewer belt changes

Applications

- Calibrating surfaces
- Coarse sanding of solid wood and wood-based materials
- Fine sanding of solid wood, veneer and wood-based materials

Materials

Softwood; hardwood; resinous wood; solid surface material; plastic; bodyfiller; primer filler

Conversion forms



Application



1920 siawood



Product profile

Grit type:	Aluminium oxide
Grit range:	120 – P320
Backing:	F-wt paper
Coating:	Closed
Bonding:	Resin over resin

As an abrasive product specially designed for hardwood belt sanding, 1920 siawood achieves high stock removal rates and fine surface finishes and excels across the full range of grits in calibration sanding, intermediate sanding, fine sanding or flush sanding applications.

Advantages

- Perfect surfaces thanks to TopTec
- Dust-free process: Antistatic construction minimises dust build-up on belt, workpiece and machinery
- High removal rate and fine surface quality on hardwood across the entire grit range
- High surface quality when sanding hardwood
- High surface quality using fine grit sizes

Applications

- Intermediate sanding of surfaces
- Fine sanding of surfaces
- Intermediate sanding of polyester varnishes
- Calibrating surfaces
- Flush sanding of edges, edge bands and protrusions

Materials

Hardwood; UV lacquer; UP lacquer; PU lacquer; solid surface material

Conversion forms



Application



1950 siaspeed ultrafine grit



Product profile

Grit type:	Aluminium oxide, P800 – P1500
Grit range:	600-1500
Backing:	Film
Coating:	Special process
Bonding:	Resin over resin
Special coverings:	Stearate

For a perfect finish at full speed – Whether it's scuffing old or new lacquers, blending, or removing dust inclusions and orange-peel effect – 1950 siaspeed ultrafine grit handles all demanding surfaces with its fine grit range.

Advantages

- Homogeneous sanding finish
- Uniform abrasive structure on film
- Excellent surface quality
- Ideal for highly polishable surfaces

Applications

- Preparation for polishing with long / cross belt (stationary)
- Intermediate sanding of varnishes

Materials

Lacquer; solid surface material

Conversion forms



Application



1960 siarexx



Product profile

Grit type:	Aluminium oxide
Grit range:	40; 60-320; 400-600
Backing:	C-wt paper, P040 – P240 B-wt paper, P280 – P600
Coating:	Electrostatic open
Bonding:	Resin over resin
Special coating:	Stearate, P080 – P600

The benchmark on wood, lacquers and paints – 1960 siarexx cut is a universal all-round product for manual and portable machine sanding and delivers impressive results in every respect for wood and lacquer applications.

Advantages

- Universal all-round product for wood and lacquer
- High level of flexibility guarantees trouble-free sanding of corners and edges
- Low clogging
- Good finish properties

Applications

- Keying of solid wood
- Intermediate sanding of varnishes on surfaces and curves
- Keying of primers, primer fillers and bodyfillers
- Final sanding as preparation for painting

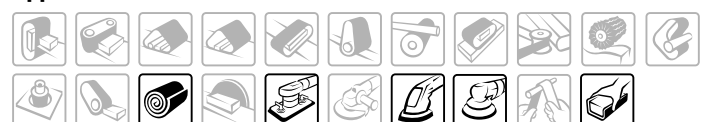
Materials

Softwood, hardwood, resinous wood, water-based lacquer, UP lacquer, PU lacquer, NC lacquer, UV lacquer, acrylic lacquer, solid surface material, old paint, old lacquer, primer filler, primer, bodyfiller, plastic, mineral fibreboard, plaster, plasterboard

Conversion forms



Application



2728 siapan



Product profile

Grit type:	Silicon carbide
Grit range:	40-180
Backing:	Z-wt cloth, polyester
Coating:	Electrostatic open, P040 – P100 Closed, P120 – P180
Bonding:	Resin over resin
Equipment:	TopTec

The very robust all-round abrasive belt for coarse to fine sanding – Universally usable, 2728 siapan is the key to outstanding quality. With its especially sturdy polyester backing, it offers consistent results from surface calibrating through to fine sanding even in extreme applications and with long lifetimes.

Advantages

- Suitable for the entire sanding process from surface calibrating through to fine sanding
- Suitable for all industrial wide belt sanders
- High tear resistance
- High climate resistance
- Can withstand high lateral forces from belt oscillation
- Suitable for frequent belt changing
- Can bridge large gaps between guide rollers and sanding platen
- Simple handling
- Waterproof and washable

Applications

- Calibrating
- Intermediate sanding
- Fine sanding
- Keying of chipboards, MDF boards and hardboards
- Keying of plywood, wood core plywood and solid wood panels

Materials

Chipboard; MDF board; HDF board; wood-based material; mineral fibreboard; solid surface material

Conversion forms



Application



2747 siatur



Product profile

Grit type:	Silicon carbide
Grit range:	60-320; 400; 600
Backing:	JJ-wt cloth, cotton
Coating:	Closed
Bonding:	Resin over resin
Special coating:	Cooling additive

As a specialist product for sanding fittings, the flexible silicon carbide belt 2747 siatur offers high adaptability to contours, curves and profiles and produces first-class results in applications ranging from deburring to structuring and final sanding of hard to grind metals and non-ferrous metals.

Advantages

- Long lifetime
- Highly flexible
- Excellent surface quality
- Highly adaptable to contours, curves and profiles

Applications

- Shaping of MDF boards
- Profile grinding for radii greater than 5 mm
- Intermediate sanding of varnishes on profiled workpieces

Materials

Chipboard

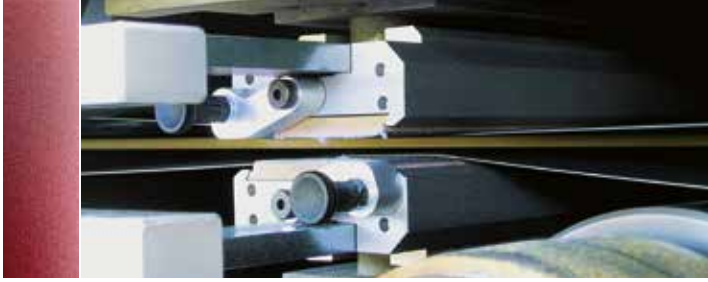
Conversion forms



Application



2918 siapan



Product profile

Grit type:	Semi-friable aluminium oxide
Grit range:	36-120
Backing:	Z-wt cloth, polyester
Coating:	Electrostatic open: P036 – P060 Closed: P080 – P120
Bonding:	Resin over resin
Technology:	TopTec

Specialised for sanding soft and hart wood materials, 2918 siapan impresses not only with its robustness and transverse stability, but also with its optimal removal rate in the coarse grit range – as a wide belt and as a segmented belt.

Advantages

- Dust-free process: Antistatic construction minimises dust build-up on belt, workpiece and machinery
- High transverse belt stability
- High removal rate when working on softwood and hardwood with coarser grits
- Can be repeatedly clamped and unclamped on the machine
- Waterproof and washable

Applications

- Calibrating, intermediate sanding, fine sanding
- Keying of plywood, wood core plywood and solid wood panels
- Calibrating solid wood
- Calibrating, coarse and intermediate sanding
- Coarse sanding in plywood manufacturing and laminated solid wood panels
- Fine sanding of laminated solid wood panels

Materials

Hardwood; softwood; resinous wood; wood-based material

Conversion forms



Application



2920 siawood x



Product profile

Grit type:	Aluminium oxide
Grit range:	16; 24–240; 320
Backing:	Y-wt cloth, cotton, P016 – P050 X-wt cloth, cotton, P060 – P320
Coating:	Electrostatic: P016 – P120 Closed: P150 – P320
Bonding:	Resin over resin
Equipment:	TopTec

For optimal performance on softwood – 2920 siawood is ideal for belt sanding in the production of plywood and softwood panels and delivers a high performance for stock removal, long lifetime and good finish in coarse to fine sanding applications.

Advantages

- Perfect surfaces thanks to TopTec
- Dust-free process: Antistatic construction minimises dust build-up on belt, workpiece and machinery
- Suitable for long periods of use thanks to very robust backing and optimised grit spreading technology
- High removal rate when working on softwood and hardwood with coarser grits

Applications

- Flush sanding of edges
- Coarse sanding in plywood manufacturing
- Intermediate sanding in plywood manufacturing
- Coarse sanding of laminated softwood panels
- Intermediate sanding of laminated softwood panels
- Fine sanding of laminated softwood panels
- Sanding off paints and lacquers

Materials

Softwood; hardwood; resinous wood; solid surface material; old lacquer; old paint; bodyfiller; primer filler; plywood panel; MDF board; chipboard

Conversion forms



Application



2936 siatur jj



Product profile

Grit type:	Aluminium oxide
Grit range:	60-320
Backing:	JJ-wt cloth, cotton
Coating:	Closed
Bonding:	Resin over resin

The highly flexible abrasive for profiles, curves and contours with radii from 5–10 mm – Designed for profile sanding of radii between 5–10 mm, 2936 siatur jj achieves a high level of dimensional accuracy during profile belt sanding applications and delivers perfect results when sanding profiled workpieces.

Advantages

- High level of dimensional accuracy during profile belt sanding
- Ideal for manual sanding of turned workpieces
- Highly adaptable to contours, curves and profiles
- Can be torn to any desired format
- Suitable for pneumatic rollers
- Suitable for sanding brushes

Applications

- Shaped sanding of profiles and contours
- Fine sanding of profiles and contours
- Intermediate sanding of curves and profiles
- Profile grinding for radii greater than 5 mm

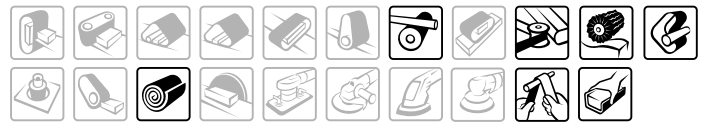
Materials

Softwood; hardwood; resinous wood; solid surface material; primer; bodyfiller; primer filler; UP lacquer; PU lacquer; NC lacquer, UV lacquer, water-based lacquer

Conversion forms



Application



2951 siatur h



Product profile

Grit type:	Aluminium oxide
Grit range:	40; 60-320; 400; 600
Backing:	H-wt cloth, cotton
Coating:	Closed
Bonding:	Resin over resin
Technology:	siasoft

For the perfect finish on profiled workpieces with radii of 2–5 mm – 2951 siatur h excels in manual and portable machine sanding applications with radii of 2–5 mm thanks to its high adaptability and dimensional accuracy, especially in jobs such as keying, intermediate sanding and final sanding on paint, lacquer, body filler and primer filler.

Advantages

- High level of dimensional accuracy during profile belt sanding
- Highly adaptable to contours and shapes
- Suitable for sanding brushes

Applications

- Fine sanding of profiles and contours
- Intermediate sanding of varnishes on curves and profiles
- Profile grinding for radii greater than 2 mm
- Keying of paints, lacquers, bodyfiller, primer filler and plastics

Materials

Softwood; hardwood; resinous wood; plywood panel; UP lacquer; PU lacquer, NC lacquer; UV lacquer; water-based lacquer; acrylic lacquer; primer filler; primer; solid surface material; plastic; plaster; plasterboard

Conversion forms



Application



3708 siapan



Product profile

Grit type:	Silicon carbide
Grit range:	36-150
Backing:	Paper / cloth combination
Coating:	Electrostatic open, P036 – P100 Closed: P120 – P150
Bonding:	Resin over resin
Technology:	TopTec

The high-tech belts of the special 3708 siapan series are ideal for calibration sanding, intermediate sanding and final sanding of plywood boards and blockboards as well as glued wood boards and switch panels.

Advantages

- Can be used as wide belt and segmented belt
- Suitable for the entire sanding process from surface calibrating through to fine sanding
- Fine sanding pattern thanks to stable backing
- Extremely long lifetime
- Gentle on sanding platen
- Backing with very high strength and stability

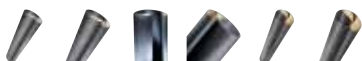
Applications

- Calibrating
- Intermediate sanding
- Fine sanding
- Keying of chipboards, MDF boards and hardboards
- Keying of laminate panels (back)
- Keying of plywood, wood core plywood and solid wood panels

Materials

Chipboard; MDF board; HDF board; wood-based material; HPL laminate; mineral fibreboard; solid surface material

Conversion forms



Application



7900 sianet



Product profile

Grit type:	Blue-fired / white aluminium oxide
Grit range:	80-240; 320; 400-600
Backing:	Knitted fabric
Coating:	Electrostatic
Bonding:	Resin over resin
Equipment:	siafast; sianet

The powerful net-backed abrasive – The special net structure of 7900 sianet enables dust-free sanding with the highest abrasive performance.

Advantages

- Full-surface dust extraction
- High removal rate without clogging
- Very efficient and productive
- High tear resistance, thanks to sturdy net backing

Applications

- Sanding off old varnish, paints and stains, old paints and lacquers, raised wooden fibres, floorboards, wooden terraces and pool surrounds, brittle or poorly adhesive paints
- Keying smoothed surfaces for a surface with better paint adhesion
- Flattening uneven areas

Materials

Acrylic lacquer; old lacquer; primer filler; plaster; plasterboard; priming foil; primer coat; hardwood; resinous wood; HDF board; melamine sheet

Conversion forms



Application



7940 siaair



Product profile

Grit type:	Aluminium oxide
Grit range:	240; 360; 500-1000; 1500-2000; 3000-4000
Backing:	Knitted fabric with foam backing
Coating:	Special process
Bonding:	Resin over resin
Technology:	siafast

Whether it's scuffing, fine sanding or preparation for polishing – The improved siaair technology of 7940 siaair is the key to a perfect finish in damp and dry sanding applications.

Advantages

- High stock removal rates and excellent finish
- Low clogging in damp and dry sanding
- Highly adaptable to contours, curves and profiles
- Pressure-equalising foam gives perfect surface finish
- Waterproof and washable
- Resistant to silicon remover

Applications

- Matt finishing of conventional old and new varnishes as well as composite materials
- Fine sanding of primer filler in hard-to-reach areas
- Preparation for polishing on high-gloss surfaces

Materials

Paint; lacquer; old lacquer; gelcoat polyester; plastic; acrylic glass; composite material

Conversion forms



Application





Know-how










Optimum grit sequence

Using the optimum grit sequence during the sanding process not only gives better sanding results but is also important in achieving the most economical surface treatment. For this reason it is important never to skip more than one grit size at one time!

For example:



The main exceptions to this are given below:

From	To	Remark
Contact belt sanding 	Pad belt sanding 	Use next finer grit e.g. P150 and P180
Cross belt sanding 	Pad belt sanding 	Use same grit e.g. P150 and P150
Pad belt sanding 	Random orbital sanding 	Use same grit e.g. P150 and P150
Random orbital sanding 	Manual sanding 	Skip two grit sizes e.g. P150 and P240

Pictograms



Platen belt sanding



Edge belt sanding



Wide belt sanding contact/
pad combined



Pad wide belt sanding



Cross belt sanding



Contact wide belt sanding



Pneumatic drum sanding



Stroke belt sanding



Combination profile sanding



Brush finishing



Slack-of-belt sanding



Drum sanding spira band



Contact belt sanding



Rolls



Stationary disc sanding



Orbital sanders



Angle grinder



Delta sander



Random orbital sander;
rotary sander



Manual sanding for profiles



Manual sanding with sanding block

Overview: Sanding belts in standard sizes

When you order belts in our new standard dimensions, you'll benefit from price savings compared to the non-standard sizes

Hand sanding belts and sleeves (width: 30–390 mm / length: up to 950 mm)

Narrow, edge and long belts (width: 25–399 mm / length: up to 8500 mm)

Tongued sanding belts (width: 6–30 mm / length: up to 950 mm)

Belts with a width of less than 75 mm **and** less than 300 mm in length cannot be produced.

Width in mm		Length in mm											
6	90	95	200	350	550	800	1300	1830	2400	3150	3900	5230	7150
10	100	100	210	365	560	830	1340	1850	2450	3200	4000	5360	7200
13	110	105	220	380	580	860	1370	1900	2480	3250	4100	5400	7350
16	120	110	225	395	600	900	1400	1950	2500	3300	4200	5500	7750
20	150	115	235	400	610	915	1450	2000	2550	3350	4250	5900	7800
25	180	120	250	410	620	950	1480	2050	2600	3400	4300	6200	8000
30	200	125	260	425	630	1000	1500	2100	2620	3450	4400	6400	8130
35	220	130	272	450	650	1065	1525	2150	2650	3500	4500	6550	8500
40	250	135	280	457	675	1100	1550	2180	2700	3550	4600	6700	8700
45	280	142	289	480	690	1120	1600	2200	2740	3600	4700	6750	9000
50	300	150	295	490	725	1150	1650	2250	2800	3650	4800	6800	
60	320	160	305	510	740	1200	1700	2280	2900	3700	4900	6900	
65	350	180	315	520	750	1220	1750	2300	3000	3750	5000	7000	
75	380	190	330	533	760	1250	1800	2350	3100	3800	5130	7100	

Wide belts on paper backing

(1749, 1909, 1920, 1719, 1730, 1918, 1919)

Segmented belts on request

Width in mm		
400	670	1300
420	700	1310
430	910	1350
450	930	1370
500	970	1400
560	1010	1450
580	1050	1600
600	1100	1620
610	1120	1650
630	1150	1680

1919

Wide belts on cloth backing

(1815, 2511, 2515, 2707, 2800, 2803, 2812, 2820, 2829, 2920, 2925, only up to 600 mm width: 2546, 2945, 2946)

Width in mm		
400	670	1300
420	700	1310
430	910	1330
450	930	1350
500	970	1370
560	1010	1400
580	1050	
600	1100	
610	1120	
630	1150	

2920

Length in mm	
1525	2200
1900	2620
2000	3250
2150	

Length in mm	
1525	2200
1900	2620
2000	3250
2150	

Example: 1310 mm (width) x 2620 mm (length)





Chipboard

(consists mainly of wood chips)

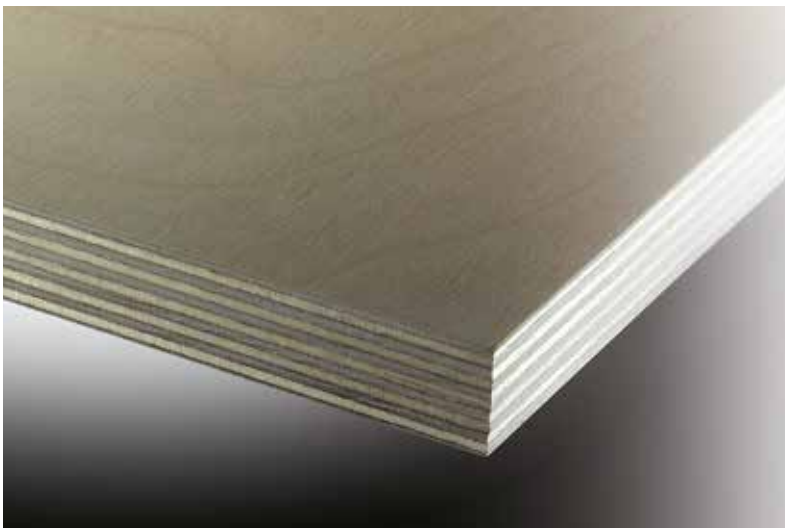
Chipboard is a subgroup of wood particle board. It is a flat, compressed sheet with a surface made of especially fine-grade chips. It is made by gravity- or air-spreading processes, and during its manufacture there is a gradual transition from the coarse-grained inner layer to the fine-grained outer layer. Chipboard is in most cases veneered or covered with an outer coating. Because the edge faces of chipboard are very rough, these are rarely finished and are usually covered, for instance with an edging of solid wood.



MDF

(consists mainly of wood fibres)

MDF (medium-density fibreboard) is a sheet material made from wood fibres. MDF's technical properties make it one of the world's fastest-growing wood products. Based on finely crushed fibres of conifer wood, usually without bark, and produced by a gentle compression process, the result is a wood product which is consistently homogeneous in both its length and width. MDF board is very easy to work with and is highly versatile in its applications. It is often used as a base material for laminate flooring and in the furniture industry, where the ability to finish its edges (profiling) is a highly desirable property.



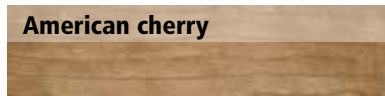
Plywood

(consists mainly of veneer)

The term plywood refers to sheets of wood made up of a number of layers of veneer glued one on top of the other. Each layer is rotated through 90° before being glued down to the layer beneath. The grain on the two visible sides runs parallel. The number of layers is therefore uneven. Plywood is available in various wood types and must be sanded with an abrasive suited to the relevant wood type because only the outermost layer is sanded, and this contains no adhesive. Plywood is used mostly for making furniture, models and also for interior work.



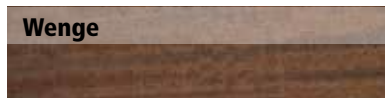
Beech



American cherry



Oak



Wenge



Walnut



Sipo



Maple



Ramin



Limba



Birch

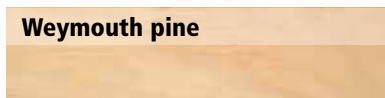
Hardwood

Because of its fibrous nature and close vascular structure, hardwood is a strong, heavy wood.

Its slow rate of growth makes the wood dense and hard and thus difficult to finish.



Spruce



Weymouth pine



Jelutong



Durian



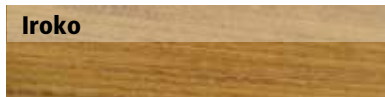
Larch



Asian oak



Pine



Iroko



Douglas fir



Teak

Wood containing resin / oil

Both hardwoods and softwoods can contain resins or oils in their cellular structure. These protect the tree from extreme weather conditions and help it to heal after physical damage.

The oils and resins, however, adversely affect the wood's sanding properties.



Yew



Hemlock



Fir



Redwood

Softwood

Wood that is lighter than 'hardwood' is categorised as 'softwood'. It grows more quickly than hardwood and has a comparatively loose, open vascular structure.

This wood is therefore softer and more sensitive to pressure but is easier to finish.



Classical solid surface materials

The traditional solid surface materials are challenging to work with. White aluminium oxide, semi-friable aluminium oxide and ceramic aluminium oxide are suitable grits. Silicon carbide is not suitable for this material.

Errors in choice of processing steps become more apparent, usually towards the end of the processing steps. It is advisable to pay particular attention to following the processing steps. Even single deeper scratches reappear during polishing and ruin the finish.

The category of traditional solid surface materials include, for example, Corian®, Varicor®, Kerrock®, Avonite®, Creanit®, Hi Macs®, Staron® and Marlan®.



Very hard solid surface materials

Harder solid surface materials are significantly more scratch-resistant. Therefore, the disadvantages of traditional solid surface materials, such as low scratch resistance, are counteracted.

However, achieving a gloss level on these materials is more challenging. It is recommended to use diamond abrasives to process these materials professionally.

sia Abrasives offers diamond products for this application. This means that products such as Silestone, as well as natural stone such as marble and granite, can be processed efficiently.



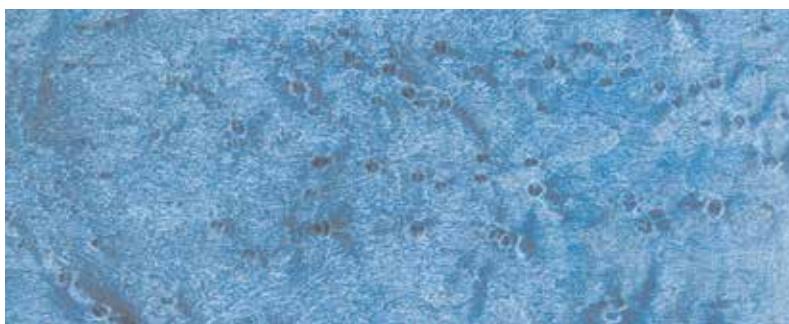
UV-hardened varnishes

- Almost solvent-free
- Approx. solids content 99%
- UV curing leads to a short processing time
- Thin varnish layer (furniture industry), industrial parquet coating
- Workpieces usually flat, varnish frequently applied by roller on production line
- Very hard-wearing



UP varnishes (unsaturated polyester)

- Mostly two-component system; hardening is initiated by adding a curing agent
- Approx. solids content 90%
- Thick varnish layers possible
- Minimal varnish shrinkage
- Very hard, robust varnish
- Intermediate sanding best with coarse sizes (P150–P240) for better adhesion



Water-based varnishes

- Water used as thinner
- Approx. solids content 30–40%
- Drying is a physical process, curing partially a chemical process
- Drying time somewhat lengthy and more difficult to control
- Wood fibres raised by water absorption
- Usually thermoplastic
- Sanding material tend to clog easily



NC (nitrocellulose) varnishes

- Contains solvent
- Approx. solids content 20%
- Drying is a physical process
- Thin layers
- Thermoplastic
- Scratches from sanding in wood and varnish quickly visible



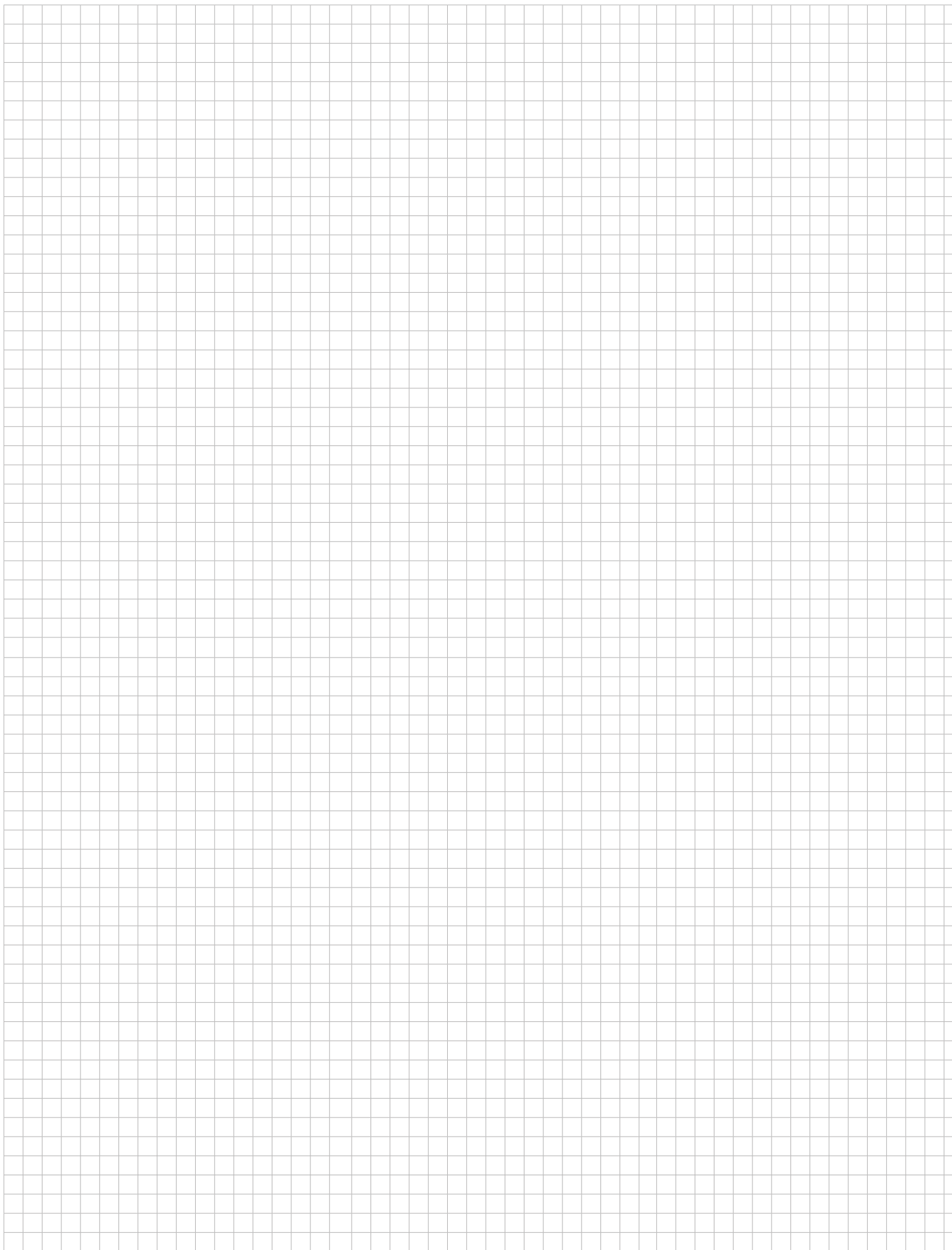
PUR (polyurethane) varnishes

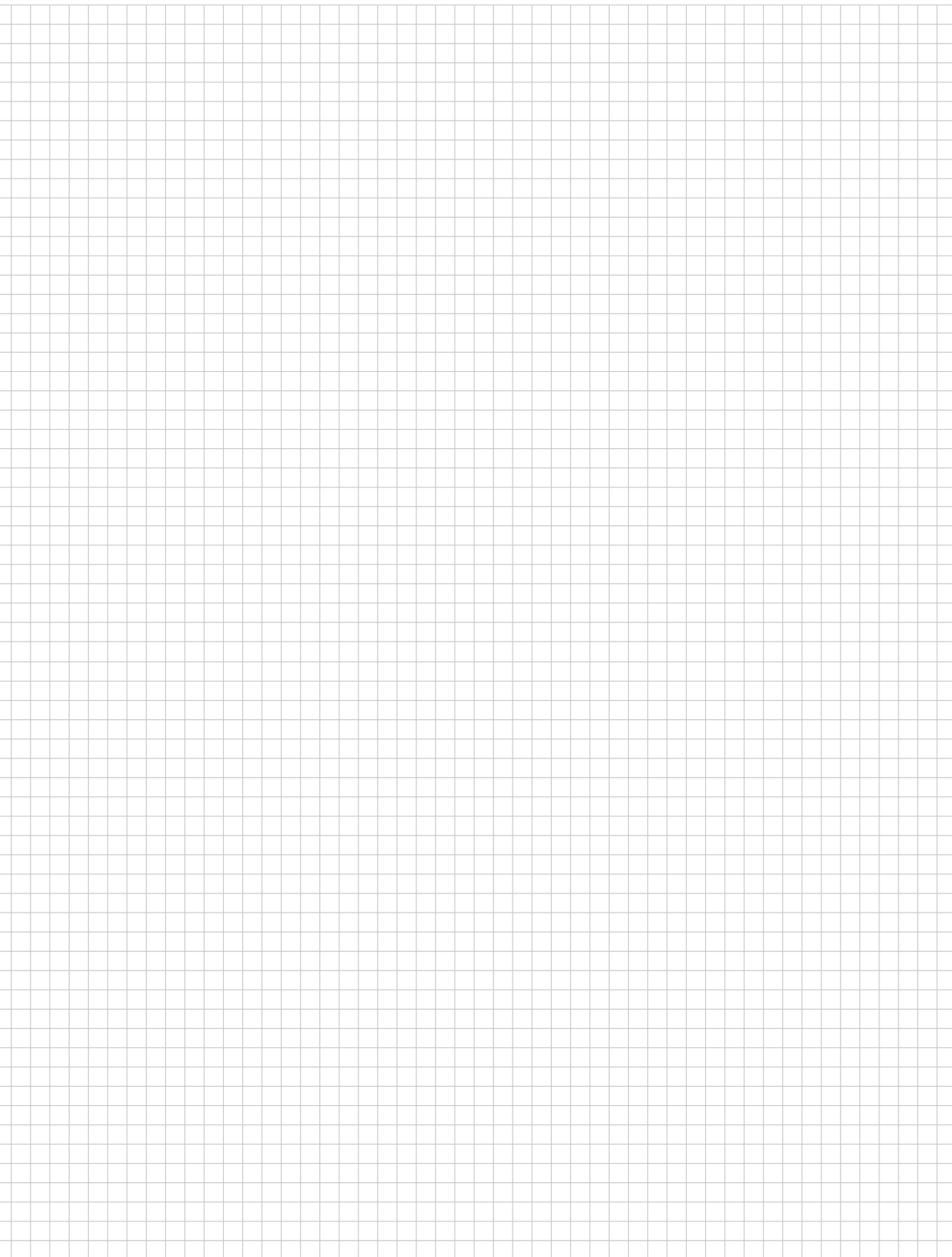
- Contains solvent
- Approx. solids content 30–40%
- Drying is a physical process, curing is a chemical process
- The better the varnish has set, the lower the tendency to clog



Oil/wax

- Natural wood protection, e.g. linseed oil (impregnation)
- Oil is absorbed by the wood, filling up the cell cavities
- Does not form a film







Your Key to a Perfect Surface
www.sia-abrasives.com



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