



## Aerospace

**Abrasives solutions for the aerospace industry** 







#### **Global partner**

Developed and manufactured using Swiss technology and present in over 80 countries: sia Abrasives markets complete abrasive systems for all kinds of surfaces with its 1,300 employees worldwide.

#### The world's most modern abrasives plant

Setting the pace for future generations of abrasives: Innovative abrasives are manufactured "just in time" using a modularised production process in the highly innovative Maker 5 plant.

#### **Production expertise**

This leader in technology is setting new standards with the world's most state-of-the-art abrasives production plant, the Maker 5.

#### Visit us online:



- ► Product search
- ► Clearly arranged comparison of products
- ► Accessible anytime from anywhere

www.sia-abrasives.com

## Industrial know-how

As a world-leading manufacturer of high-quality abrasives with more than 140 years of expertise and innovation, we know the steps involved in our customers' processes and offer the right sanding solution for any material.

#### **OEM**



**Tier Suppliers** 



**MRO** 



## Types of abrasives

Over 60,000 abrasive products in a variety of abrasive formats, sizes and specifications for all materials, applications and requirements.



#### **Coated abrasives**

- Classical coated abrasives and abrasive systems
- For advanced surface treatment of all types of material



#### **Nonwoven abrasives**

- Nonwoven products for preparation and cleaning tasks and for structuring
- Especially for use on metal



#### Foam abrasives

- Foam sanding pads in the widest possible range of shapes and grades
- For precision treatment of wood, fillers, paints and lacquers











# Best practice Activation of hard primers



### **Quick & stable process**

Scuffing and activating hard surfaces, such as glossy primers, requires performing abrasives. sia Abrasives recommends 7241 siacarbon.

It features a patented diamond grain that provides an extraordinarily efficient sanding process.

#### **Conventional abrasive on paper backing**



\* In comparison to 7500 sianet CER

#### 7500 sianet CER with ceramic grit



#### 7241 siacarbon with diamond grit



\* In comparison to standard abrasives

Benchmark test conditions:

Substrate: Glossy primer, abrasives: Standard paper disc, sianet CER 7500, 7241 siacarbon, Ø 150 mm, no holes, grit 180, tool: Random orbit sander

## **Lacquering preparation on primer**

#### Primer sanding, removing dust inclusions or orange peel effect with a random orbit sander



7500 sianet CER

Grit range:
120 – 320



Page 38 Powerful net-backed abrasive with the ceramic grit

1950 siaspeed

Grit range:
120 – 320



Page 35 A versatile all-round product with very high abrasive performance and good lifetime

#### Reactivating primer with a random orbit sander



7500 sianet CER

Grit range:
240 – 320



Page 38 Powerful net-backed abrasive with the best dust extraction rates

1950 siaspeed Grit range: 240 – 320



Page 35 A versatile all-round product with very high abrasive performance and good lifetime

6120 siafleece

Grit range:

Very fine A,

fine A



Page 36 Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding

#### Reactivating very hard surfaces and primer



7241 siacarbon

Grit range:
120 – 320



Page 37 Highly efficient diamond abrasive for outstanding reduction of process time



## **Preparing for logo applications**

#### Keying with a random orbit sander



7500 sianet CER Grit range: 240 – 320



Page 38 Powerful net-backed abrasive with ceramic grit

1950 siaspeed

Grit range: 120 – 320



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A versatile all-round product with very high abrasive performance and good lifetime

6120 siafleece

Grit range: Very fine / ultrafine



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Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding

#### **Keying with manual sanding**



7900 sianet Grit range: 240 – 400



Page 38

Powerful net-backed abrasive with the best dust extraction rates

1950 siaspeed

Grit range: 240 – 600



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A versatile all-round product with very high abrasive performance and good lifetime

#### Keying with manual sanding and nonwoven abrasive



6120 siafleece

Grit range: Very fine / ultrafine



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Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding

## Finishing – Polishing

#### Removing dust inclusions with a mini angle grinder or Finiblock



1913 siawat Grit range: 1500 – 2000



Page 34 Leading v highly ad

Leading wet abrasive which is highly adaptable to contours and shapes

#### **Removing dust inclusions with manual sanding**



1913 siawat Grit range: 1500 – 2000



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Leading wet abrasive which is highly adaptable to contours and shapes

#### Removing dust inclusions with a random orbit sander



7940 siaair Grit range: 2000 – 3000



Page 38

Perfect finish in wet and dry applications for polishing preparation

Best results with: Extra soft type backing pad, protective pad

#### **Polishing**



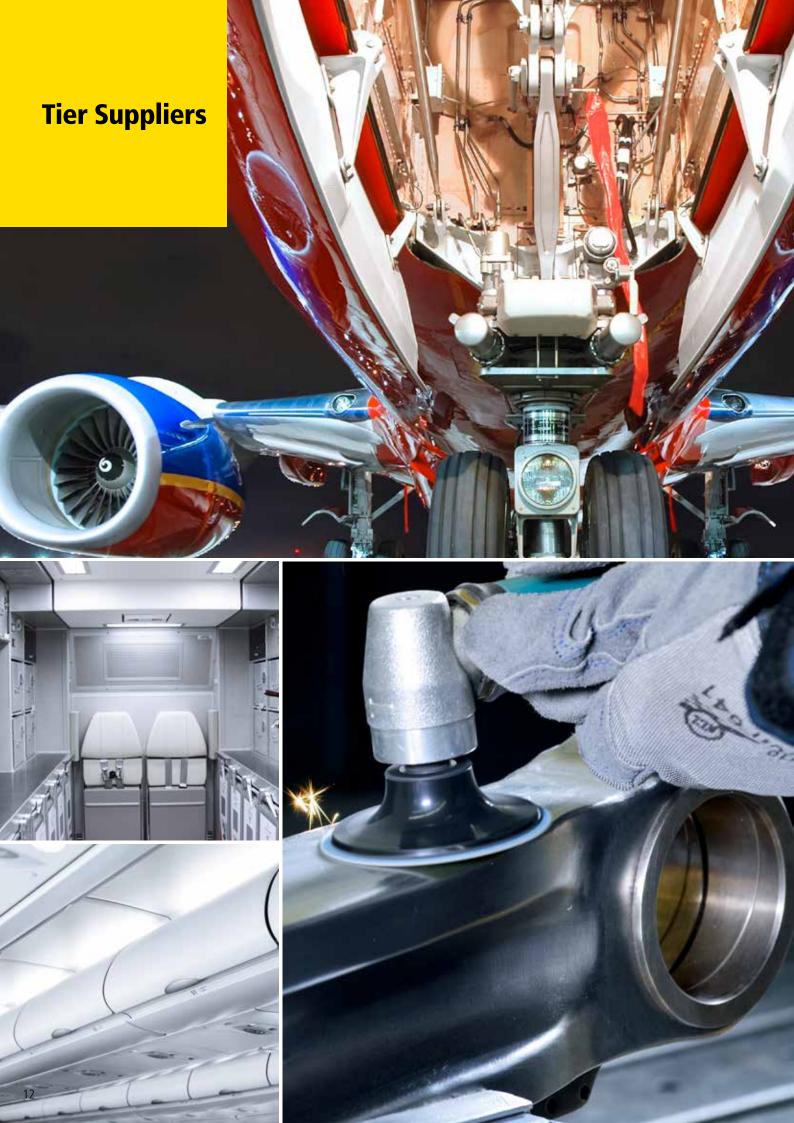
siachrome polishing system





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Best results with: siachrome polishing system and lambskin discs







Best practice
Composite
paint
preparation



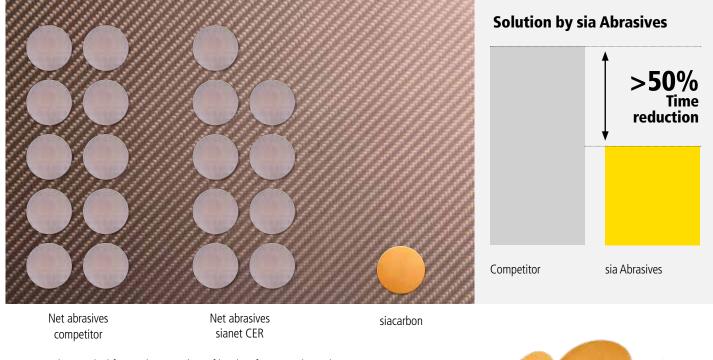
#### Cleaning and scuffing of raw composite materials

When manufacturing modern composite materials, all surfaces need to be cleaned from mould agents and scuffed for downstream paint processes. In this step of the process often standard abrasive discs with paper or net backing

can be found. However this process is a tough job even for performing quality abrasive products. sia Abrasives offers a dedicated, unique solution, that provides the user with tremendous savings as regards cost and time.

#### siacarbon – Remarkable reduction of process times

Original test result: Abrasive consumption and process time to finish one composite part of ca. 2sqm.



7241 siacarbon is ideal for machine sanding of hard surfaces — independent from the hole system. It delivers unique results when keying scratch-resistant lacquers, composite materials, new parts, factory primers and aluminium with a minimum abrasive consumption. Excellent performance with consistent removal rates thanks to patented diamond technology.



## Hint: More efficient activation with finer grits



Due to the special composition of siacarbon abrasives it may be advisable in some cases to be used on grit finer than the abrasive used in the current process. Also, in the present case, fine grit #180 was able to achieve a better activated surface than grit #120, which was used with the previous competitor product

## Composite component manufacture

#### Remove mould agent and prepare for painting



7241 siacarbon Grit range: 120 – 320



Page 37 Highly efficient diamond abrasive for outstanding reduction of process times

7500 sianet CER
Grit range:
120 – 320



Page 38 High-performance product with ceramic aluminium oxide and perfect dust extraction

#### Paint preparation with random orbit sander



1950 siaspeed Grit range: 120 – 320



Page 35 A versatile all-round product with very high abrasive performance and good lifetime

Best results with: Hard or soft type backing pad

7900 sianet
Grit range:
120 – 320



Page 38 Powerful net-backed abrasive with the best dust extraction rates

Best results with: Hard or soft type backing pad

#### **Paint preparation with hand sanding**



7972 siasponge soft

Grit range: Medium, fine



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Colour coded foams for easy identification and high grinding performance

## **Best practice: Cleaning moulds (FEMI)**

During the manufacture of composite materials, the moulds have to be cleaned of mould agent and resin stains. In comparison to standard cleaning processes with nonwoven materials, siacarbon can do the job up to 5 times faster. In real life tests process times were reduced from 15 to 3 man hours.

#### **Product recommendation**



7241 siacarbon

Grit range: 180 – 240





# Best practice Composite interiors (GRP)



## More efficient process by superior product lifetime Applications: Fine surface preparation on interior panels

sia Abrasives is best in class for the composite applications and coatings. High productivity and constant surface quality are specific requirements of the interiors industry. It is the perfect match and offers the right solutions

throughout the entire process chain: Basic and fine surface preparation, finishing and polishing.

#### Competitor standard paper disc Ø 150 mm, grit 150



#### 1950 siaspeed Ø 150 mm, grit 150



#### 7500 sianet CER Ø 150 mm, grit 150



Benchmark test under the following conditions:

Substrate: Primer, Abrasive: Conventional paper disc, 1950 siaspeed, 7500 sianet CER, Ø 150 mm, no holes, grit 150, tool: Random orbit sander

## Metal-Processes siafix quick change system

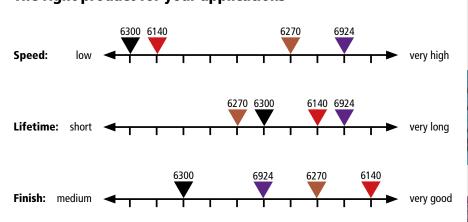


Coated abrasives	2511 siabite	2820 siamet	2925 sialoX	6924 siamet HD	6270 siamet SCM LS
Best for	Fastest stock removal	General grinding and finishing on multiple metals	Fine finishing	Quick cut	Edge work
Advantages	<ul><li>Long lifetime</li><li>Aggresive cut</li><li>Heat-reduced cutting</li></ul>	<ul><li>High edge stability, high tear resistance</li><li>High performance</li></ul>	High edge stability, high tear resistance     For general use	Major time-saving     More resistant on edges     Low smearing tendency	Long lifetime     Excellent surface quality     Suitable for dry and wet sanding
Product profile Grit type	Ceramic aluminium oxide	Zirconia alumina	Aluminium oxide	Aluminium oxide	Aluminium oxide
Grit range	36 – 120	36 – 320	24 – 320	extra coarse – medium	coarse – superfine
Backing	y-wt cloth	y-wt cloth	x-wt cloth	Scrim	Scrim
Coating	Cooling top coat	Active additives	Active additives	_	_
Materials					
Non-alloy / low-alloy / mild steels	$\nabla$	▼	▼	▼	▼
High-alloy steel / stainless steel	▼	$\nabla$	$\nabla$	▼	▼
Non-ferrous metals		▼	▼	$\nabla$	$\nabla$
Other metals	$\nabla$			▼	$\nabla$
Applications					
Heavy	▼	$\nabla$		▼	
Standard	$\nabla$	▼	▼	▼	▼
Light		▼	▼	$\nabla$	▼
Dimensions					
Diameter	Ø 20-75 mm	Ø 20 – 75 mm	Ø 20 – 75 mm	Ø 20 – 75 mm	Ø 20 – 75 mm

Further products available on www.sia-abrasives.com

▼ Main applications∇ Secondary applications

#### The right product for your applications







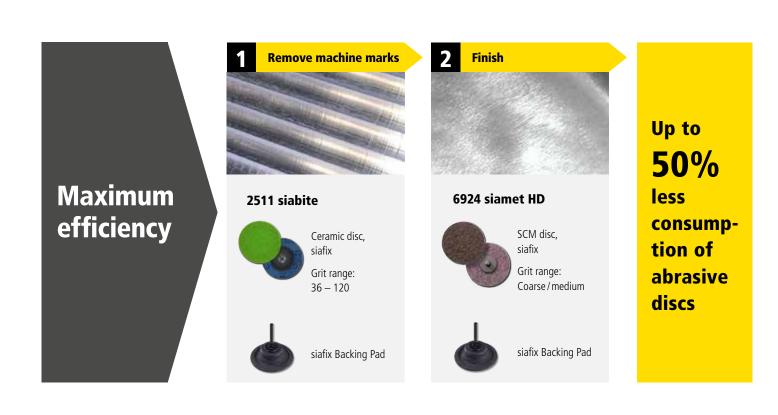




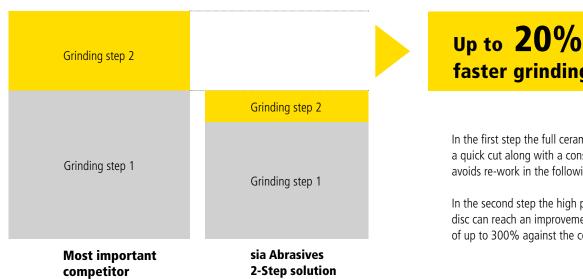


**Best Practice Removing machine** marks





### Considerably shorter sanding process by perfectly aligned abrasive products



## **Up to 20%** faster grinding process

In the first step the full ceramic grain provides a quick cut along with a consistent finish. This avoids re-work in the following step.

In the second step the high performance SCM disc can reach an improvement in performance of up to 300% against the competition.

## **Metal component manufacture**

#### Deburring/removing machine marks with mini angle grinder



Titanium, aluminium, Inox: 2511 siabite

Grit range: 36 – 80



Page 35

Aggressive abrasive performance with long lifetime due to self-sharpening effect of the ceramic grit

Steel:

2820 siamet, siafix

Grit range: 36 – 60



Page 35

All-rounder with high removal rate and very good edge stability and tear resistance

Titanium, aluminium, steel: 6924 siamet HD, siafix

Grit range: Extra coarse, coarse



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High-performance discs for consistent finishing over a long lifetime

#### **Deburring with a power file**



Titanium, aluminium, Inox: 2511 siabite

Grit range: 36 – 60



Page 37

Aggressive abrasive performance with long lifetime due to selfsharpening effect of the ceramic grit

### **Best practice: High belt stability**

If sanding belts tear due to substandard belt joints, it can lead to time-consuming amendments or losses in productivity. Market-leading belt joints from sia Abrasives are made to a high standard of quality and offer high-quality consistency, ensuring a loss-free and efficient production process.

Your advantage:
No damage to components thanks
to excellent stability and long life
of the belt joints

#### **Product recommendation**



2511 siabite

2820 siamet





#### **Deburring with a straight grinder**



Steel: 2820 siamet, spiral belt

Grit range: 36 – 150 Titanium: 2511 siabite Grit range: 36 – 120



Page 35 Sp

Spiral belt for sanding applications on inner radius or pipes

#### **Deburring with an angle grinder**



Titanium: 4570 fiber disc

Grit range: 36 – 120



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Fiber discs featuring X-Technology for considerable cooler grinding with a long service life and a consistent cutting performance

#### Blending with a mini angle grinder



Titanium, Inox: 2511 siabite, siafix

Grit range: 60 – 120



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Aggressive abrasive performance with long lifetime due to self-sharpening effect of the ceramic grit

Steel: 2820 siamet, siafix

Grit range: 80 – 120



Page 35

All-rounder with high removal rate and very good edge stability and tear resistance

Titanium, steel: 6924 siamet HD, siafix

Grit range: Medium



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High-performance discs for consistent finishing over a long lifetime

#### Finish with mini angle grinder



Steel: 2820 siamet, siafix

Grit range: 120 – 180



Page 35

All-rounder with high removal rate and very good edge stability and tear resistance

Titanium, steel: 6924 siamet HD, siafix

Grit range: Medium



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High-performance discs for consistent finishing over a long lifetime

#### Finishing with a straight grinder



Steel, aluminium 6120 siavlies siamop Nonwoven & Interleaved

Grit range: Extra coarse – very fine



For finer surface finishing in portable machine sanding

Steel, aluminium 2923 siamop

Grit range: 60 – 150



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For grinding and blending on metal surfaces

#### Lacquering preparation with a random orbit sander



2546 siabite

Grit range: 80 – 180



Specially designed for high-alloy steel and other hard to grind metals – high adaptability to contours, curves and profiles

More information on www.sia-abrasives.com

1815 siatop

Grit range: 120 – 180



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Impresses with its high removal rate, long lifetime and very good finish in a wide range of disc applications

7500 sianet CER

Grit range: 120 – 180



Page 38

Powerful net-backed abrasive with the best dust extraction rates

Best results with:

Hard or soft type backing pad

6120 siafleece 6130 siafleece HD

Grit range: Very fine



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Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding

#### **Lacquering preparation with manual sanding**



6120 siafleece

Grit range: Very fine



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Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding





## Best Practise Reducing downtime



## Considerably lower costs thanks to a faster process

As downtime results in enormous cost for airlines, it is important to keep the process time for sanding at a minimum.

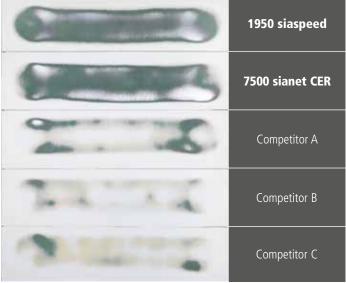
The cost of abrasive materials only make up a very small part of the total process cost.

Performing abrasives can reduce the main cost: Labour. The test results on exterior paint show how big the difference between abrasives can be.

#### **Benchmark test**



#### Result after sanding for 3 minutes: Considerably more material is removed



## Best Practise MRO test procedure



### Save 40% time thanks to an efficient working process

#### **Working time**



22:16 min

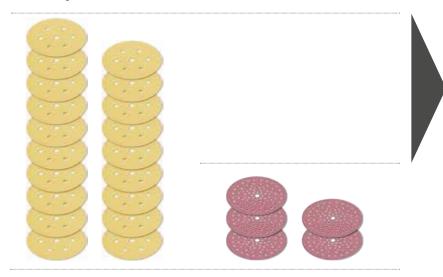


12:40 min



Up to 40% faster working process

#### **Consumption abrasive discs**



Up to **4X** longer lifetime

Only 5 discs instead of 19 discs

#### **Sanding process**

Product cost (Abrasives)

Labour cost (working hours)

Conventional Abrasives 5-hole

Product cost
(Abrasives)

Labour cost
(working hours)

1950 siaspeed 81-Loch / S Performance Up to 25% less sanding process cost

Performance comparison under the following conditions:

Abrasive: 150 mm diameter disc, competitor 6-hole — sia multihole, Grit: 180, Object: Airplane turbine, Material: 1x Primer green, 1x BaseCoat, 1x Color lacquer system, Machine: Eccentric, 150 mm, 8 mm stroke, Backing pad: Type hard, hook and loop, 54-hole, without direct machine dust extraction



## **Exterior – Sanding off paint**

#### Paint stripping, removing logos with a random orbit sander



7500 sianet CER Grit range: 80 – 240



Page 38 Powerful net-backed abrasive with the best dust extraction rates

Best results with: Hard or soft type backing pad

1950 S Performance

Grit range: 80 – 240



Page 35 A versatile all-round product with very high abrasive performance and good lifetime

Best results with: Hard or extra soft type backing pad, intermediate pad

#### **Cleaning after chemical paint stripping**



6120 siafleece 6120 siafleece HD

Grit range: Very fine A



Nonwoven abrasive which is highly flexible and adaptable to contours for manual and portable machine sanding

## **Interior – Cabin conditioning**

#### Keying/sanding off with a random orbit sander



7500 sianet CER

Grit range: 120 – 320



Page 38

Powerful net-backed abrasive with the best dust extraction rates

Best results with:

Hard or soft type backing pad

1950 S Performance

Grit range: 120 – 320



Page 35

A versatile all-round product with very high abrasive performance and good lifetime

Best results with:

Hard or extra soft type backing pad,

intermediate pad

## **Interior – High-gloss panels**

#### Spot repair, removing orange peel effect with a random orbit sander



1950 siaspeed Grit range: 800 - 1500



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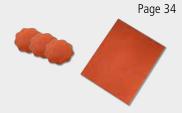
A versatile all-round product with very high abrasive performance and good lifetime. Ultrafine grit range for excellent surface quality.

Best results with: Extra soft type backing pad, intermediate pad

#### Spot repair with Finiblock or hand sanding block



1913 siawat Grit range: 2000, 2500



Leading wet abrasive which is highly adaptable to contours and shapes.

Best results with: Finiblock, hand sanding block

#### **Polishing preparation**



7940 siaair Grit range: 1000 - 3000



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Perfect finish wet sanding for polishing preparation.

Best results with: Extra soft type backing pad, protective pad

#### **Polishing**



siachrome cut, siachrome finish, siachrome magic



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Best results with: siachrome polishing discs

## **Polishing**

## System solution acrylic

**Fine scratches** 















#### **Scratch test**

It is the user's responsibility to decide whether the process shown is suitable for their specific applications and to follow relevant safety requirements. Downstream quality assuring processes need to be observed.



Deep scratches can be felt with the finger tip, normal scratches with the finger nail. Fine scratches can not be felt.

#### **Reliable polishing process**

Even modern basic materials are not maintenance-free and require rework now and then. The sia Abrasives polishing process can be a support when reworking acrylic glass. The well synchronized abrasives and grit steps can efficiently remove all fine and medium scratches. In any case the operater has to consider the specifications of existing repair manuals and to follow safety-related rules for quality assurance. The mandatory minimum thickness of the acrylic base material may not be undercut and needs to be assured before returning the parts to service.





#### **Scratch resistant surfaces**

To rework very hard, scratch resistant surfaces we recommend using 7240 siacarat discs with diamond grit instead of siaair 7940.

With up to 40 times more lifetime compared to standard abrasives.



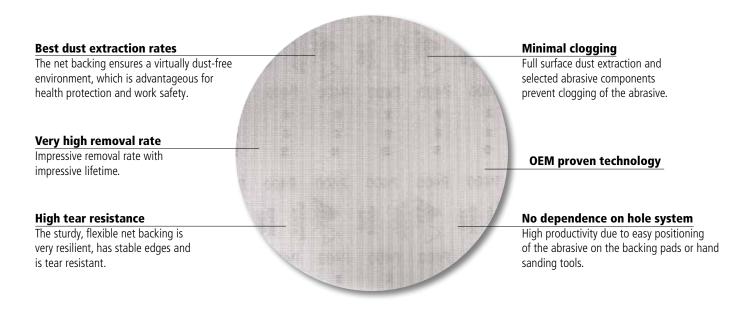






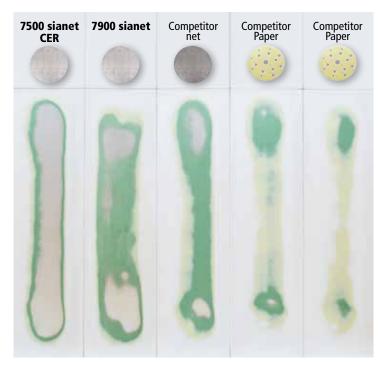


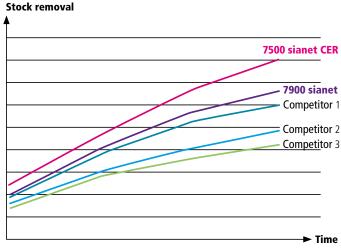
### **Advantages of sianet net-backed abrasives**



## Sanding down exterior paint - Result after 3 minutes

(Representative benchmark test)





The results were identified under the following circumstances:

7500 sianet CER, 7900 sianet, main competitor net, Abrasive:

main competitor 1 & 2 for paper discs

Grit:

Substrate: BaseCoat / ClearCoat exterior paint system Tool:

Random orbit sander, 150 mm, 5 mm stroke with dust

extraction

#### 1815 siatop – Fast and cost-effective surface treatment of steel and non-ferrous metals



#### Advantages

- Outstanding performance in dry sanding applications
- Fast and safe change of abrasive with siafast hook and loop fastening system
- The low-cost alternative to fibre discs
- Minimal effort required for high stock removal

#### **Product profile**

Grit type: Zirconia alumina Grit range: 24 – 150

Grit range: 24 – 150
Backing: Fibre 24 – 40
f-wt paper 50 – P150

Coating: Closed

Bonding: Resin over resin Coating: Cooling additive

#### **Applications**

- Removal of paint
- Removal of rust
- Weld preparation
- Removal of discolouration
- Sanding down
- Surface treatment
- Deburring

#### 1913 siawat – Wet sanding quality



#### Advantages

- Very even sanding pattern
- Highly water resistant
- Highly adaptable to contours and shapes
- High stock removal with good finish
- A longstanding, market-leading wet abrasive
- Can be used wet or dry

#### **Product profile**

Grit type: Semi-friable aluminium oxide

Silicon carbide

P60 – P1200 P1500 – P2500

Grit range: 60 – 2500

Backing: d-wt paper

c-wt paper

P60 – P600 P800 – P2500

Coating: Closed

Bonding: Resin over resin

#### **Applications**

- Flatting bodyfiller, primer fillers and lacquers
- Scuffing old and new lacquers for blending
- Removing paint runs
- Removing orange peel effect and dust inclusions
- Fine sanding paints, lacquers and fillers
- Intermediate sanding
- Keying

#### 1944 siaone – The one with cut



#### **Advantages**

- The optimised abrasive grits combined with the siafast cut velours ensure an aggressive initial cut
- Process stability thanks to uniform scratch depths in all grits
- Excellent price/performance ratio

#### **Product profile**

Grit type: Semi-friable aluminium oxide P40 – P500

Grit range: 40; 60-240; 320; 400-500

Backing: c-wt paper P40 – P120 b-wt paper P150 – P500

Coating: Electrostatic

Bonding: Resin over resin

Coating: Stearate P220 – P500

#### **Applications**

- Sanding off coatings and impurities
- Sanding out unevenness at the edges of repaired surfaces
- Flatting bodyfiller and primer filler
- Fine sanding primer filler
- Keying old and new lacquers

P220 - P600

#### 1950 siaspeed – At full speed to a perfect surface



#### **Product profile**

Grit type: Mixed grit types 40 - 80

Semi-friable aluminium oxide/blue-fired P100 — P600

Grit range: 40 – 1500 Backing: Paper

Coating: Electrostatic open

Electrostatic 40 – P180

Bonding: Resin over resin

Coating: Stearat from 80

#### **Advantages**

- High-performance abrasive
- High removal rate
- Longest lifetime
- A versatile all-round product
- Less clogging thanks to stearate coating
- Lower abrasive consumption
- Homogeneous sanding finish

#### **Applications**

- Keying polyesters and composites
- Sanding out feather edges, flash rust and stone chips
- Shaping bodyfiller and primer fillers
- Keying new components and factory primers
- Sanding down old lacquer
- Scuffing old and new lacquers for blending
- Flatting bodyfiller, primer fillers and lacquers

#### 2511 siabite – The performance specialist



#### **Product profile**

Grit type: Ceramic aluminium oxide

Grit range: 36 – 120
Backing: y-wt cloth
Coating: Closed

Bonding: Resin over resin Coating: Cooling additive

#### **Advantages**

- Less machine interruptions thanks to long lifetime
- Minimal effort required thanks to highly aggressive abrasive grit
- Reduced heat cutting thanks to active additive with cooling effect
- More efficient thanks to maximum performance
- Improved flexibility for power files thanks to special flexing

#### **Applications**

- Weld preparation
- Sanding down
- Deburring
- Smoothing and blending of flaws
- Removing discolouration
- Surface treatment
- Structuring and final sanding

#### 2820 siamet – The cost-effective specialist for a wide range of applications



#### **Product profile**

Grit type: Zirconia alumina
Grit range: 36 — 400
Backing: y-wt cloth
Coating: Closed
Bonding: Resin over resin
Coating: Cooling additive

#### **Advantages**

- High edge stability, high initial tearing resistance
- High performance for all metals
- Aggressive cut

#### **Applications**

- Removal of paint
- Removal of rust
- Weld preparation
- Removing discolouration
- Sanding down
- Surface treatment
- Deburring
- Smoothing and blending of flaws

#### 4570 siabite X – The fibre disc for the coolest grinding with new and unique XTechnology



#### **Product profile**

Grit type: Ceramic aluminium oxide

Grit range: 36 – 120
Backing: Fibre
Coating: Electrostatic
Bonding: Resin over resin
Coating: Cooling additive

#### **Advantages**

- Cool cut
- Uniform cutting performance
- · Long lifetime
- Fine surface finish

#### **Applications**

- Weld removal
- Removal of scale and mill scale
- · Blending flaws
- Reduced discolouration

#### 6120 siafleece – For even surface finishes in manual and portable machine sanding



#### **Product profile**

Grit type: Aluminium oxide

Silicon carbide

Grit range: Coarse – ultrafine S

Backing: Nonwoven
Coating: Mechanical
Bonding: Resin over resin

#### Advantages

- Highly flexible and adaptable to contours
- For manual or portable machine sanding
- Low clogging
- Suitable for general use in dry and wet sanding applications

#### **Applications**

- Removal of rust
- Removing discolouration
- Structuring / finishing

#### 6140 siafleece sd – Delivers constant performance for an even finish



#### **Product profile**

Grit type: Aluminium oxide Grit range: Medium – very fine

Backing: Nonwoven
Coating: Mechanical
Bonding: Resin over resin

#### **Advantages**

- Consistent scratch pattern and long lifetime thanks to even grit distribution and penetration
- High tear resistance
- Low clogging
- Suitable for general use in dry and wet sanding applications

#### **Applications**

- Deburring
- Removal of rust and paint
- Reduced discolouration
- Surface treatment
- Smoothing and blending of flaws
- Structuring/finishing

# 6270 siamet scm LS - The flexible and powerful solution for an optimal surface finish



### **Product profile**

Grit type: Aluminium oxide
Grit range: Coarse — very fine
Backing: Nonwoven
Coating: Mechanical
Bonding: Resin over resin

#### **Advantages**

- Long lifetime
- Excellent surface quality
- Suitable for general use in dry and wet sanding applications

#### **Applications**

- Deburring
- Removal of rust and paint
- Removing discolouration
- Surface treatment
- Smoothing and blending of flaws
- Structuring / finishing

# 6924 siamet HD – High-performance discs for steel surface finish



#### **Product profile**

Grit type: Aluminium oxide
Grit range: Extra coarse — medium
Backing: Nonwoven

Coating: Mechanical
Bonding: Resin over resin

# Advantages

- Significant time saving thanks to maximum aggressiveness and highest stock removal rates
- Excellent performance on hard materials
- More durable so more resistant on edges
- Considerably more resistant to smearing than existing products; especially at the edge of the disc when working at tight angles
- Excellent and consistent finish over a long period of time

#### **Applications**

- Smoothing and blending of flaws
- Sanding down
- Light deburring
- Removing polishing scratches
- Removing discolouration
- Removing paint
- Removing rust

# 7241 siacarbon – The harder, the more efficient



#### **Product profile**

Grit type: Diamond
Grit range: 80 – 500
Backing: Cloth

Coating: Special process
Bonding: Resin over resin

### **Advantages**

- Excellent performance on hard materials
- Extremely long lifetime thanks to state-of-the-art diamond technology
- Full surface dust extraction
- No dependence on hole system
- Minimal risk of sanding through on edges
- Increased efficiency due to significant time saving
- Consistent removal rate

#### **Applications**

- Keying scratch-resistant lacquer systems and composite materials
- Keying new components and factory primers
- Keying aluminium

# 7500 sianet CER – The powerful net-backed abrasive with ceramic grit



### **Product profile**

Grit type: Ceramic aluminium oxide

Grit range: 80 – 400
Backing: Knitted fabric
Coating: Electrostatic
Bonding: Resin over resin

#### **Advantages**

- Full surface dust extraction
- No dependence on hole system
- High removal rate without clogging
- High tear resistance thanks to sturdy net backing
- High-performance product with ceramic aluminium oxide

## **Applications**

- Sanding down coatings and impurities
- Keying primers
- Fine sanding solid wood, veneers, solid surface materials, priming foil, plaster and plasterboard
- Intermediate sanding of lacguers

# 7900 sianet – The powerful net-backed abrasive



#### **Product profile**

Grit type: Blue-fired aluminium oxide/white aluminium oxide

Grit range: 80 – 400
Backing: Knitted fabric
Coating: Electrostatic
Bonding: Resin over resin

#### **Advantages**

- Full surface dust extraction
- High removal rate without clogging
- Very efficient and productive
- High tear resistance thanks to sturdy net backing
- Ideal for wood that smears or wood containing oils or resins

#### **Applications**

- Sanding down coatings and impurities
- Keying paints, lacquers, bodyfillers, primer fillers and plastics
- Keying primers
- Fine sanding surfaces and edges
- Intermediate sanding of lacquers
- Preparation for polishing on high-gloss surfaces
- Fine sanding solid wood, veneers, solid surface materials, priming foil, plaster and plasterboard

# 7940 siaair - The perfect finish



# **Product profile**

Grit type: Aluminium oxide Grit range: 240 – 4000

Backing: Knitted fabric with foam backings

Coating: Special process Bonding: Resin over resin

#### **Advantages**

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

#### **Applications**

- Matt finish for conventional old and new lacquers as well as composite materials
- Fine sanding of primer fillers in hard-to-reach areas
- Producing a matt finish for blending
- Preparation for polishing on high-gloss surfaces

# siasponge



# **Maximum conformability and process reliability**

The siasponge colour concept. The grit range classifications used for siasponge products are based on colour theory. The various grades of foam abrasives have been subdivided based on the colours of the spectrum below.

# 7972 siasponge soft – For dry sanding in hard-to-reach areas



# **Product profile**

Grit type: Aluminium oxide Grade: Medium – microfine Backing: Foam (closed structure)

Coating: Mechanical Elastic binder Bonding: 1-sided Coating:

#### **Advantages**

- Colour coded for easy identification
- Low clogging thanks to 3D properties imparted by foam, binder system and grit
- Minimal risk of sanding through from high contact pressure
- Moulds itself to the workpiece
- Regular scratch depth due to consistent grinding performance
- No risk of sanding through thanks to pressure equalising foam

#### **Applications**

- Keying conventional old and new lacquers, primer fillers and paints
- Fine sanding primer fillers in hard-to-reach areas
- Scuffing lacquers
- Keying wood, composite materials, paints, lacquers and primer fillers
- Flatting fillers
- Intermediate sanding of lacquers



### Comparison test of siasponge grades with 1950 siaspeed grit ranges

										micro	fine	microfine
siasponge								ultraf	ine			ultrafine
soft pad							super	fine				superfine
(EVA/PU-FOAM)												
		mediu	ım									medium
1950 siaspeed	180	240	280	320	400	500	600	800	1000	1200	1500	

Comparison test under the following conditions:
Test method: LTM9.0 – sia Abrasives applications simulation. Test equipment: 59.275 / Berta, Material: DuPontTM Corian® Surface roughness measurement (Rz) as per DIN EN ISO 4287

Backing pad type		Grit		Type of work – Coating & Compos	sites
Soft 5.0 Orbit	Hard 10.0 – 5.0 Orbit	two grit sizes	40 60 80 100 120 150 180 220	Mechanical lacquer removal	• Sanding out, flatting of filler and 180 primer
		Important: Do not skip more than two grit sizes	240 280 320 360 400	• Fine sanding	Reactivating primer
	Extra soft 5.0 – 2.5 Orbit	Important:	500 600 800	Refining and de-nibbing surfaces (siavl	
Intermediate Pad			1000 1200 1500	<ul> <li>Keying of old lacquer and subsequent of the subsequen</li></ul>	·

Machine sanding		
sianet 7500/7900 Type of sanding: Dry	<b>1950 siaspeed</b> Type of sanding: Dry	<b>7241 siacarbon</b> Type of sanding: Dry
	P1500	
	P1200	
	P1000	
	P800	
600 (7900)	P600	
500 (7900)	P500	500
400	P400	
320	P320	320
	P280	
240	P240	240
220	P220	
180	P180	180
150	P150	
120	P120	120
	P100	
80	80	80
	60	
	40	

Hand sanding	
<b>1950 siaspeed siasoft</b> Type of sanding: Dry	<b>7972 siasponge soft</b> Type of sanding: Dry
P1500	
P1200	microfine
P1000	
P800	ultrafine
P600	superfine
P500	Îns
P400	e the second sec
P320	
P280	
P240	medium
P220	E
P180	
P150	

siachrome – the polishing system: fast, simple, brilliant

# **Product profile**

With the siachrome polishing system, sia Abrasives offers an efficient range of products that can be used to reliably carry out all stages of top coat preparation.

#### **Advantages**

- Efficient and process-reliable polishing due to colour concept
- Excellent for use on standard and ceramic paints
- Suitable for soft or hard lacquers
- Usable on all polishable surfaces
- Silicone and solvent free, water-based
- Can be used without coolant
- No discolouration of plastic parts

### **Applications**

- Removal of polishing scratches
- Removal of sanding defects from hard lacquers
- Removal of holograms

Polishing material	Dimension	Part number
	<b>siachrome cut 1 kg</b> Highly effective scratch remover	0020.6663
	siachrome cut 250 ml Highly effective scratch remover	0020.7047
- STATE	siachrome finish 1 kg Microfine finishing paste	0020.6664
Î	<b>siachrome finish 250 ml</b> Microfine finishing paste	0020.7048

Glaze	Dimension	Part number
No.	siachrome pearl 1 litre Glaze	0020.6667
Î	siachrome pearl 250 ml Glaze	0020.7049
	siachrome platinum 0.2 litre Premium paint wax	0020.6665

Backing pad for polishing	Dimension	Part number
<b>e</b>	<b>Ø 75 mm</b> Type: Soft Backing pad for polishing and lambskin pads, siafast hook and loop system M14	0020.4899
(2)	Ø 125 mm Type: Soft Backing pad for polishing and lambskin pads, siafast hook and loop system	0020.6669
@	Ø 125 mm Type: Soft Backing pad for polishing and lambskin pads, siafast hook and loop system M 5/8"	0020.6741

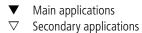
Polishing accessories	Dimension	Part number
	<b>Lambskin</b> Ø 135 mm, type: siafast Lambskin for polishing paints and buffing up old paints	0020.6674
	<b>Lambskin</b> Ø 85 mm, type: siafast Lambskin for polishing paints and buffing up old paints	0020.6673
	Polishing disc, yellow Ø 145 mm, type: siafast Polishing disc for polishing paints and buffing up old paints	0020.6671
	Polishing disc, yellow Ø 85 mm, type: siafast Polishing disc for polishing paints and buffing up old paints	0020.6672
	Polishing disc, black Ø 145 mm, type: siafast Polishing disc for removing holograms or sealing applications	0020.6676
	Polishing disc, black Ø 85 mm, type: siafast Polishing disc for removing holograms or sealing applications	0020.6675
	Applications puck Ø 130 mm, the anatomically shaped Applications puck fits well in the palm of the hand during polishing	0020.6668
1	Microfibre cloth Microfibre cloth for cleaning surfaces	0020.3185
	Premium cloth Premium cloth for ultra-gentle cleaning of paint finishes	0020.6670
	Polish bottle stand 315 x 104 x 130 mm for 1 kg / 1 l siachrome bottle	0020.7431

Polishing accessories	Dimension	Part number
	siachrome magic 0.5 litres Heavy-duty cleaner	0020.6666



siamop flap wheels provide surface grinding and finishing solutions on all metals for various forms and hard-to-reach places. The range addresses all kinds of requirements: The coated range helps in stock removal while giving a consistent scratch pattern. The interleaved and nonwoven range help in achieving the perfect surface finish.

Applications	2923 siamop	6120 siamop interleaved	6120 siamop nonwoven
<ul> <li>Deburring</li> <li>Smoothing and blending of flaws</li> <li>Preparing</li> <li>Structuring/finishing</li> <li>Removing discolouration</li> </ul>			
Differentiation	For grinding and blending on all metal surfaces	For faster surface finishing with portable machine sanding	For finer surface finishing with portable machine sanding
Advantages	<ul> <li>Wide range of applications</li> <li>Highly flexible</li> <li>Versatile</li> <li>Fast stock removal</li> </ul>	Great for blending     Higher conformability     Combined surface treatment and finishing	Perfect for regraining and finishing on stainless steel Highest conformability Choice between matt or bright surface finish
<b>Product profile</b> Grit type	Aluminium oxide	Aluminium oxide	Aluminium oxide, Silicon carbide
Grit range * nonwoven/coated grit	40; 60; 80; 120; 150	coarse A/60*; medium A/120*; fine A/180*; very fine A/240*	extra coarse A; coarse A; medium A; medium S; fine A; very fine A
Backing	x-wt cloth	x-wt cloth, nonwoven	nonwoven
Materials			
Non-alloy steel/low-alloy steel/mild steel	▼	▼	▼
High-alloy steel stainless steel	riangle	▼	▼
Non-ferrous metals	riangle	$\nabla$	$\nabla$
Other metals	riangle	$\nabla$	$\nabla$
Applications Heavy	▼		
Standard	▼	▼	▼
Light	$\nabla$	$\nabla$	$\nabla$
Dimensions			
Diameter	Ø 20 – 80 mm	Ø 38 – 100 mm	Ø 38 – 100 mm
Width	10 – 50 mm	25 mm, 50 mm	25 mm, 50 mm



# The complete range for any applications

# Remove

Coated flap wheels for stock removal and blending

# **Prepare**

Interleaved flap wheels for surface treatment and finishing

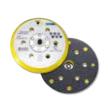
# **Finishing**

Nonwoven flap wheels for the finer surface finishing

# **Backing pad for random orbit sanders**







From extra soft to hard, available in all different hole patterns and dimensions, sia Abrasives backing pads are the perfect fit for our sanding systems – for your applications and all common interfaces.

Backing pad	Dimension	Part
Ducking pau	Dimension	number
	Ø 150 mm 103-hole Type: Extra soft, siafast hook and loop system Pad: 5/16; M8 backing pad for multi-hole and mesh-like siafast abrasive discs	0020.5742
	Ø 150 mm 103-hole Type: Soft, siafast hook and loop system Pad: 5/16; M8 backing pad for multi-hole and mesh-like siafast abrasive discs	0020.5740
<b>©</b>	Ø 150 mm 103-hole Type: Hard, siafast hook and loop system Pad: 5/16; M8 backing pad for multi-hole and mesh-like siafast abrasive discs	0020.5741
١	Ø 30 mm without holes Type: Soft, self-adhesive Pad: 1/4 Backing pad for self-adhesive daisy discs	0020.4689
	Ø 32 mm without holes Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for self-adhesive daisy discs	0020.1839
	Ø 77 mm without holes Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.1988
	Ø 125 mm without holes Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6730
	Ø 125 mm without holes Type: Hard, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6731
<b>②</b>	Ø 125 mm 8-hole Type: Extra soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.0540
<b>4</b>	Ø 150 mm 54-hole Type: Hard, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6735

Backing pad	Dimension	Part number
<b>©</b>	<b>Ø 125 mm</b> 8-hole Type: Hard, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.0539
	Ø 125 mm 54-hole Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6728
	<b>Ø 125 mm</b> 54-hole Type: Hard, siafast hook and loop system Dry applications Pad: 5/16, backing pad for siafast discs	0020.6729
0	Ø 150 mm without holes Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.0346
	Ø 150 mm without holes Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6736
	Ø 150 mm without holes Type: Hard, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.0345
	Ø 150 mm without holes Type: Hard, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6737
	Ø 150 mm 15-hole Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.4740
	Ø 150 mm 54-hole Type: Soft, siafast hook and loop system Pad: 5/16 Backing pad for siafast discs	0020.6734
	Ø 200 mm 9-hole/multi-hole Type: Soft, siafast hook and loop system Backing pad for siafast discs	0020.4647

# **Backing pad for rotary sanders**



Wide range of backing pads for rotary sanders in different dimensions, hardnesses and for all common interfaces.

Backing pad	Dimension	Part
		number
(9)	Ø 115 mm Type: Hard Pad: M14	0020.0348
	Backing pad for fibre discs	
	<b>Ø 125 mm</b> Type: Hard Pad: 5/8	0020.0431
	Backing pad for fibre discs	
0	Ø 125 mm Type: Hard Pad: M14	0020.0350
	Backing pad for fibre discs	
<b>a</b> []	Ø <b>50 mm</b> Type: Hard, siafix quick change system Pad: 1/4", 6 mm	0020.0132
	Backing pad for siafix discs and mini angle grinder	
	<b>Ø 75 mm</b> Type: Hard, siafix quick change system Pad: 1/4", 6 mm	0020.0133
	Backing pad for siafix discs and mini angle grinder	
19	<b>Ø 115 mm</b> Type: Hard Pad: M14	0020.0396
	Backing pad for scm discs	
<b>2</b>	Ø 115 mm Type: Soft, siafast hook and loop system Pad: 5/8	0020.2325
	Backing pad for siafast discs	
<b>(2)</b>	Ø 115 mm Type: Soft, siafast hook and loop system Pad: M14	0020.0172
	Backing pad for siafast discs	

Intermediate and protective discs	Dimension	Part number
	Intermediate pad Ø 77 mm, without hole Type: Dry sanding Thickness: 12 mm	0020.0269
	Pressure-equalising foam intermediate pad	
<b>9</b>	Intermediate pad Ø 125 mm, 54-hole Type: Dry sanding Thickness: 10 mm Pressure-equalising foam intermediate pad for multi-hole and mesh-like abrasive discs	0020.7234
	Intermediate pad Ø 125 mm, 54-hole Type: Dry sanding Thickness: 5 mm Pressure equalising foam intermediate pad for multi-hole and mesh-like abrasive discs	0020.7429
	Protective disc Ø 145 mm, without holes Thickness: 1 mm siafast for siaair and siacarat Discs with Ø 150 mm	0020.3453
	Intermediate pad Ø 147 mm, 33-hole Thickness: 1 mm  Ensures optimal extraction by S Performance multihole disc on Mikroklett backing pad	0020.7428
	Intermediate pad Ø 150 mm, 15-hole Type: Dry sanding Thickness: 12 mm  Pressure equalising foam intermediate pad	0020.4546
	Intermediate pad Ø 150 mm, 103-hole Type: Dry sanding Thickness: 10 mm Pressure equalising foam intermediate pad for multi-hole and mesh-like abrasive discs	0020.5886
	Intermediate pad Ø 150 mm, 103-hole Type: Dry sanding Thickness: 5 mm Pressure equalising foam intermediate pad for multi-hole and mesh-like abrasive discs	0020.7430

# **Hand sanding blocks**



Complete sanding systems also offer hand sanding blocks. sia Abrasives provides hand sanding blocks and pads from small dimensions for spot repair up to special shapes for wet sanding in various grades of hardness.

Hand sanding blocks	Dimension	Part number
3	Finiblock for self-adhesive discs Ø 30 mm Type: Double-sided (soft/hard) self-adhesive	0020.3286
1	Finiblock for siafast discs Ø 30 mm Type: Double-sided (soft/hard) siafast hook and loop system	0020.3285
6	Hand sanding block with centre hole Ø 73 mm Type: Soft siafast hook and loop system 22 mm centre hole	0020.7388
	Hand sanding pad round Ø 150 mm Type: Soft siafast hook and loop system	0020.0364
	Hand sanding block 60 x 128 x 16 mm Type: Double-sided (extra soft-orange/soft-black) Wet sanding	0020.3713
	Hand sanding block 67 x 122 x 35 mm Type: Double-sided (soft/hard) siafast hook and loop system Wet sanding	0020.0343

Hand sanding blocks	Dimension	Part number
	Cork hand sanding block 70 x 125 x 40 mm Type: Hard siafast hook and loop system Dry applications	0020.0095
	Hand sanding block 70 x 125 x 30 mm Type: Hard siafast hook and loop system Dry and wet sanding	0020.0389
	Hand sanding block 70 x 125 x 38 mm Type: Double-sided (medium hard-blue/extra soft-white) siafast hook and loop system Dry applications	0020.0342
· ·	<b>70 x 125 mm</b> 29-hole	0020.6514
<b>6</b>	<b>70 x 198 mm</b> 41-hole	0020.6515
8	<b>70 x 400 mm</b> 68-hole	0020.6516
900	<b>115 x 230 mm</b> 49-hole	0020.6517



Product search
Aerospace
applications

Product search Aerospace applications	Acrylic glas	Paints	Gelcoats	Primers	High alloyed steel	Plastic material	Metals	Non-ferrous metals	Putty	Other difficult to machine materials	Non or low alloyed steels	Composites	Belts	Sheets	Delta and polygons	Flap wheels	Rolls	Foam abrasives	Discs	Strips	System components	Portable machine sanding	Manual sanding	Stationary belt sanding	Stationary machine sanding
1815 siatop					▼			<b>V</b>			•								•			•			<b>V</b>
1913 siawat		▼		▼	İ				▼					▼			•		•	•		▼	•	▼	▼
1944 siaone	▼	▼	▼	▼		▼						▼		▼			▼		•	▼		▼	•		▼
1950 siaspeed	$\blacksquare$	▼	▼	▼		▼	▼		▼			▼		▼	▼		▼		▼	▼		$\blacksquare$	▼		lacksquare
2511 siabite					▼		▼			▼			▼				▼					▼		▼	
2820 siamet							▼	▼			▼	▼	▼						▼			▼		▼	
2925 sialoX					▼			▼					▼			▼	▼		▼	▼					
4570 siabite X					▼						▼								▼						
6120 siafleece		▼	▼	▼	▼	▼	▼	▼			▼					▼	▼		▼	▼	▼	▼	▼		▼
6140 siafleece sd				ļ	▼	ļ	ļ	▼		▼	▼					ļ	▼		▼			▼	▼		
6270 siamet SCM LS					▼	Ļ		▼		▼	▼		▼				▼		▼			▼		▼	
6924 siamet HD		▼		▼	▼		▼	▼		▼	▼								▼			▼			
7241 siacarbon			▼	▼		▼	▼												▼	▼		▼			
7500 sianet CER		▼	▼	▼		▼	▼		▼			▼			ļ		▼		▼	▼		▼	▼		
7900 sianet		▼	▼	▼		▼	▼		▼			▼					▼		▼	▼		▼	▼		
7940 siaair		▼	▼			▼											•		▼	▼		▼	▼		
7972 siasponge soft		▼		▼		▼												▼	▼	▼			•		

▼ Main applications∇ Side applications



Application steps											Ba	cki	ngs																
Sanding off	Sanding down	Keying	Sanding out	Removing discolouration	Removing rust and paint	Deburring	Fine sanding	Finishing	Blending	Lacquer retouching	Scuffing	Surface treatment	Flatting	Polishing	Weld preparation	Structuring	Fibre	Cloth rigid	Paper light	Paper heavy	Special	Fleece	Wet sanding	Self-adhesive	siafast (hook and loop)	siasoft (sponge)	Dry applications		
																												Available in grit ranges:	Page:
	▼			▼	▼	▼						▼			▼		▼			▼					▼		▼	24-150	34
▼		▼	▼				▼			▼			▼						▼				$\blacksquare$	▼	▼			60-3000	34
▼		▼	▼				▼						▼						▼						▼		▼	40-500	34
$\blacksquare$		▼	▼				▼						▼						▼						▼	▼	▼	40-1500	35
	▼			▼		▼		▼	▼			▼			▼	▼		▼									▼	36-120	35
▼	▼			▼	▼	▼			▼			▼			▼			▼									▼	36-400	35
		▼		▼	▼	▼						▼	▼		▼	▼							▼				▼	240-4000	17
																	▼										▼	36-120	36
				▼	▼	▼					▼					▼						▼	▼		▼		▼	coarse—ultrafine S	36
	▼			▼	▼	▼			▼			▼				▼					▼		▼				▼	coarse – superfine A	36
				▼	▼	▼			▼			▼				▼					▼		$\blacksquare$				▼	extra coarse – very fine	37
▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		▼											▼					▼	extra coarse – medium	37
		▼																			▼		▼		▼		▼	80-500	37
$\blacksquare$			▼				▼						▼								▼				▼		▼	80-400	38
▼			▼				▼						▼								▼		▼		▼		▼	80-400	38
							▼				▼			▼							▼				▼		▼	240-4000	38
		▼					▼				▼			▼							▼				▼		▼	medium – microfine	39

Further products available on  $\boldsymbol{www.sia\text{-}abrasives.com}$ 





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