

# Metal

High performance abrasives for metal working applications



## 2 Legend

### Contact pressure

- low
- ≡ low to medium
- ≡ medium
- ≡ medium to high

### Material removal

- marginal
- ≡ medium
- ≡ high
- ≡ aggressive

### Lifetime

- less
- ≡ good
- ≡ long
- ≡ very long




### Finish

- coarse
- ≡ consistent
- ≡ fine
- ≡ very fine

### Flexibility

- rigid
- ≡ strong
- ≡ flexible
- ≡ very flexible

### Product lines

-  = Coated abrasives
-  = Nonwoven abrasives
-  = Microabrasives


### Non-ferrous metals

- A** = Aluminium
- B** = Bronze
- M** = Brass
- = all non ferrous metals







### Grit

- CER** Ceramic corundum
- Z** Zirconia alumina
- A** Aluminium oxide
- AG** 3-D Aluminium oxide agglomerate
- SiC** Silicon carbide
- E** Emery
- D** Diamant

### Grinding operation

-  = Wet grinding

### Pictograph overview

-  Hand grinding
-  Rotary grinding
-  Slack-of-belt-grinding
-  Stroke belt grinding
-  Profile belt grinding
-  Centerless belt grinding
-  Contact belt grinding
-  Die grinder
-  Power-file
-  Mini angle grinder





**Mild steel /  
carbon steel**

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**Alloy and  
high-alloy metals**

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**Non-ferrous metals**

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# Grinding solutions


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# **Mild steel / carbon steel**



The background of the page is a vibrant red gradient. Overlaid on this are numerous thin, glowing yellow and orange lines that crisscross the frame, creating a sense of dynamic energy and movement. These lines vary in length and orientation, some appearing as sharp points of light while others form soft, blurred streaks.

Steels are the most commonly used metallic materials. The properties of steel can be adjusted for a wide range of applications by alloying with carbon and other elements in combination with heat and thermomechanical treatment (simultaneous thermal treatment with plastic forming).

## 6 Mild steel / carbon steel | Grinding solutions

Stock removal		Surface grinding		Fine grinding			sia product	Properties					
<b>Cleaning</b>	<b>Heavy stock removal</b>	<b>Medium stock removal</b>	<b>Light stock removal</b>	<b>Finishing</b>	<b>Pre-polishing</b>	<b>Polishing</b>	<b>Your grinding solution</b>	<b>Grain</b>	<b>Contact pressure</b>	<b>Material removal</b>	<b>Lifetime</b>	<b>Finish</b>	<b>Flexibility</b>
K16 extra-coarse	K24–K50 coarse	K60–K80 heavy medium	K100–K120 medium	K150–K220 fine	K240–K400 very fine	K500–K1200 super fine							

### Contact belt



High Performance							sia product	Properties					
							2829 siaron	Z					
							6923 siamet hf	A					
Industrial							sia product	Properties					
							2820 siamet	Z					
							6925 siamet scm	A					

### Contact belt



High Performance							sia product	Properties					
							2800 siaron	Z					
							2980 siafin 3D	AG					
							6923 siamet hf	A					
Industrial							sia product	Properties					
							6925 siamet scm	A					

### Wide belt



High Performance							sia product	Properties					
							2510 siabite	CER					
							6923 siamet hf	A					
Industrial							sia product	Properties					
							2829 siaron	Z					
							6925 siamet scm	A					
Professional							sia product	Properties					
							2820 siamet	Z					
							1820 siamet	Z					

Stock removal		Surface grinding		Fine grinding			sia product	Properties					
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine							

### Wide belt



#### High Performance

							2800 siaron	Z					
							6923 siamet hf	A					

#### Industrial

							6925 siamet scm	A					
--	--	--	--	--	--	--	-----------------	---	--	--	--	--	--

### Slack-of and profile belt



#### High Performance

							2948 siatur	A					
							6923 siamet hf	A					

#### Industrial

							2945 siatur	A					
							2946 siatur	A					
							6925 siamet scm	A					

### Stroke belt



#### High Performance

							2800 siaron	Z					
							2829 siaron	Z					
							6923 siamet hf	A					

#### Industrial

							2820 siamet	Z					
							6925 siamet scm	A					

#### Professional

							1820 siamet	Z					
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## 8 Mild steel / carbon steel | Grinding solutions

Stock removal		Surface grinding		Fine grinding			sia product	Properties					
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24–K50 coarse	K60–K80 heavy medium	K100–K120 medium	K150–K220 fine	K240–K400 very fine	K500–K1200 super fine							

### Centerless



#### High Performance

							2800 siaron	Z					
							2980 siafin 3D	AG					
							6923 siamet hf	A					

#### Industrial

							6925 siamet scm	A					
--	--	--	--	--	--	--	-----------------	---	--	--	--	--	--

### Power-file



#### High Performance

							2829 siaron	Z					
							6925 siamet scm	A					

#### Industrial

							2820 siamet	Z					
							2946 siatur	A					

### Rotary grinding



#### High Performance

							4819 siaron	Z					
							2824 siaflap	Z					
							6926 siamet ud	A					

#### Industrial

							1815 siatop	Z					
							6925 siamet scm	A					
							6300 sia-powerstrip	SiC					

#### Professional

							4924 siamet	A					
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Stock removal		Surface grinding		Fine grinding			sia product	Properties					
<b>Cleaning</b>	<b>Heavy stock removal</b>	<b>Medium stock removal</b>	<b>Light stock removal</b>	<b>Finishing</b>	<b>Pre-polishing</b>	<b>Polishing</b>	<b>Your grinding solution</b>	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24–K50 coarse	K60–K80 heavy medium	K100–K120 medium	K150–K220 fine	K240–K400 very fine	K500–K1200 super fine							

### Hand grinding



#### Professional

							1600 sianor	E	—	—	—	—	—
							2601 sianor	E	—	—	—	—	—
							2915 siarol	A	—	—	—	—	—
							6912 siafleece	A	—	—	—	—	—

### Die grinder



#### High Performance

							9170 siamop	A	—	—	—	—	—
							9166 siafleece siamop	A	—	—	—	—	—
							9167 siamop combi	A	—	—	—	—	—
							6300 siastrip	SiC	—	—	—	—	—
							2824 spiraband	Z	—	—	—	—	—
							6913 siafleece hd	A	—	—	—	—	—
							6914 siafleece sd	A	—	—	—	—	—

### Mini angle grinder



#### High Performance

							2820 siafix	Z	—	—	—	—	—
							scm siafix	A	—	—	—	—	—



# **Alloy and high-alloy metals**







Titanium is a silvery gleaming light metal with high strength, high toughness and excellent corrosion resistance. Due to the high material price, titanium materials are only used for special applications when the combination of properties, i.e. light weight, high strength and corrosion resistance, is required.



Stock removal		Surface grinding		Fine grinding			sia product	Properties					
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24–K50 coarse	K60–K80 heavy medium	K100–K120 medium	K150–K220 fine	K240–K400 very fine	K500–K1200 super fine							

### Contact belt



#### High Performance

							2510 siabite	CER					
							2515 siabite	CER					
							2707 siawat	SiC					
							6923 siamet hf	A					

#### Industrial

							2803 siaron	Z					
							2815 siaron	Z					
							6925 siamet scm	A					

#### Professional

							2820 siamet	Z					
--	--	--	--	--	--	--	-------------	---	--	--	--	--	--

### Contact belt



#### High Performance

							2800 siaron	Z					
							2980 siafin 3D	AG					
							2707 siawat	SiC					
							6923 siamet hf	A					

#### Professional

							6925 siamet scm	A					
--	--	--	--	--	--	--	-----------------	---	--	--	--	--	--

### Wide belt



#### High Performance

							2510 siabite	CER					
							2515 siabite	CER					
							2707 siawat	SiC					
							6923 siamet hf	A					

#### Industrial

							2803 siaron	Z					
							2815 siaron	Z					
							6925 siamet scm	A					

#### Professional

							1820 siamet	Z					
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Stock removal		Surface grinding		Fine grinding			sia product	Properties					
<b>Cleaning</b>	<b>Heavy stock removal</b>	<b>Medium stock removal</b>	<b>Light stock removal</b>	<b>Finishing</b>	<b>Pre-polishing</b>	<b>Polishing</b>	<b>Your grinding solution</b>	<b>Grain</b>	<b>Contact pressure</b>	<b>Material removal</b>	<b>Lifetime</b>	<b>Finish</b>	<b>Flexibility</b>
K16 extra-coarse	K24–K50 coarse	K60–K80 heavy medium	K100–K120 medium	K150–K220 fine	K240–K400 very fine	K500–K1200 super fine							

### Wide belt



#### High Performance

							2800 siaron	Z					—
							6923 siamet hf	A		—			

#### Industrial

							2707 siawat	SiC		—			
							6925 siamet scm	A		—			—

### Slack-of and profile belt



#### High Performance

							2546 siabite	CER					
							6923 siamet hf	A		—			

#### Industrial

							2948 siatur	A		—			
							6925 siamet scm	A		—			—

#### Professional

							2945 siatur	A					
							2946 siatur	A					

### Stroke belt



#### High Performance

							2510 siabite	CER					—
							2515 siabite	CER					—
							6923 siamet hf	A		—			

#### Industrial

							2803 siaron	Z					—
							2815 siaron	Z					—
							6925 siamet scm	A		—			—

#### Professional

							2820 siamet	Z					
							1820 siamet	Z					

Stock removal		Surface grinding		Fine grinding			sia product	Properties					
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine							

### Centerless



#### High Performance

							2800 siaron	Z					
							2980 siafin 3D	AG					
							6923 siamet hf	A					

#### Industrial

							6925 siamet scm	A					
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### Power-file



#### High Performance

							2510 siabite	CER					
							2515 siabite	CER					
							6923 siamet hf	A					

#### Industrial

							2707 siawat	SiC					
							2803 siaron	Z					
							2815 siaron	Z					
							6925 siamet scm	A					
							2948 siatur	A					

#### Professional

							2820 siamet	Z					
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### Rotary grinding



#### High Performance

							4515 siabite	CER					
							2828 siaflap	Z					
							6926 siamet ud	A					

#### Industrial

							4815 siacut	Z					
							6925 siamet scm	A					
							6300 sia-powerstrip	A					

#### Professional

							1815 siatop	Z					
							4924 siamet	A					



Stock removal		Surface grinding		Fine grinding			sia product	Properties					
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine							

### Hand grinding



#### Professional

							1600 sianor	E	-	-	-		
							2601 sianor	E	-	-	-		
							2915 siarol	A				-	
							6912 siafleece	A	-	-	-		

### Die grinder



#### High Performance

							9170 siamop	A	-	-	-		
							9166 siafleece siamop	A	-	-	-		
							9167 siamop combi	A	-	-	-		
							2824 spiraband	Z			-		-
							6913 siafleece hd	A		-			
							6914 siafleece sd	A		-			
							6300 siastrip plus	A	-	-	-		

### Mini angle grinder



#### High Performance

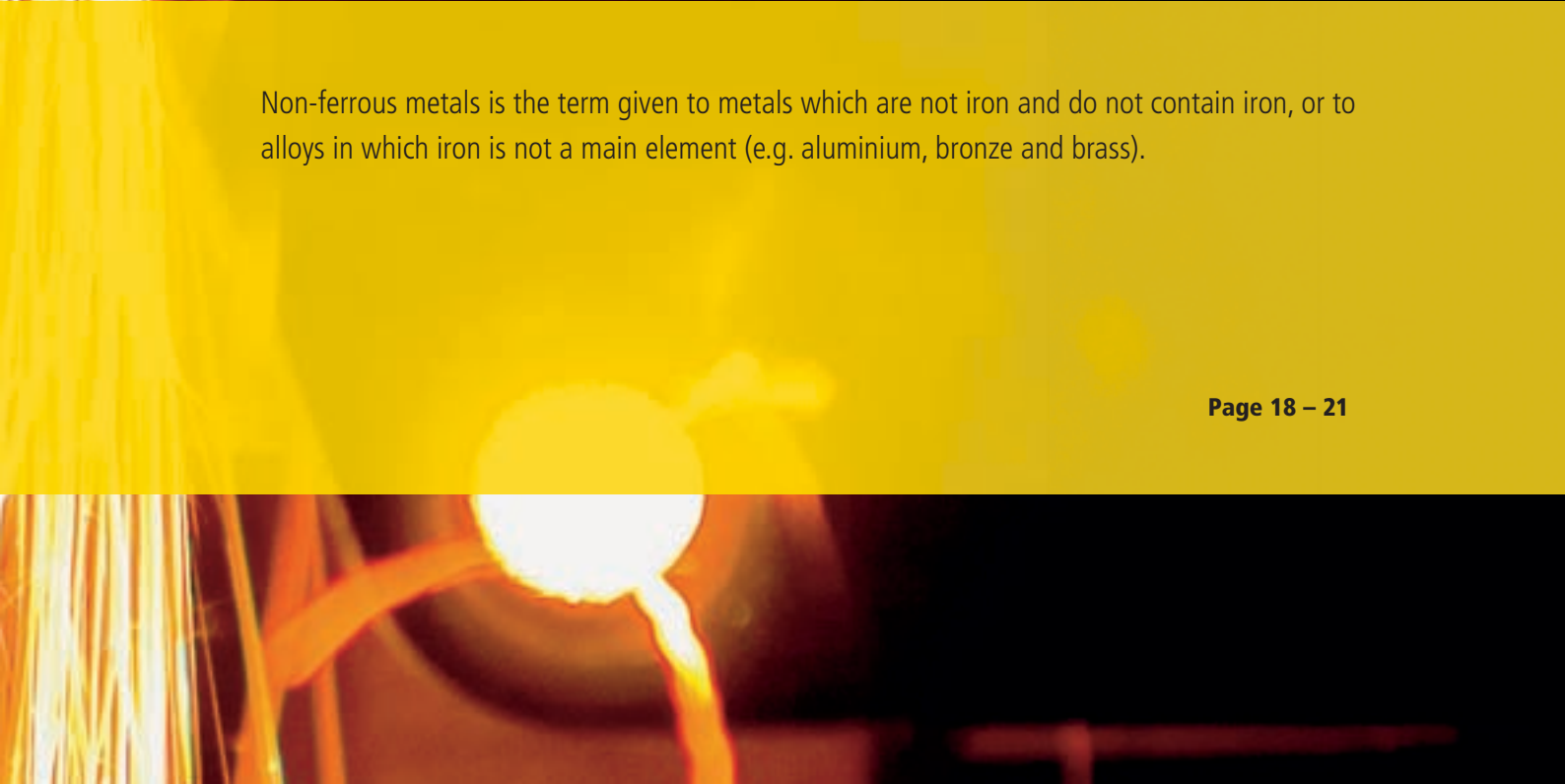
							2820 siafix	Z				-	-
							scm siafix	A	-	-	-		



# **Non-ferrous metals**



Non-ferrous metals is the term given to metals which are not iron and do not contain iron, or to alloys in which iron is not a main element (e.g. aluminium, bronze and brass).





Stock removal		Surface grinding		Fine grinding			sia product	Properties						
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine								

### Contact belt



#### High Performance

							2829 siaron	Z				—	—	•
							2707 siawat	SiC						M/B
							6923 siamet hf	A		—				•

#### Industrial

							2820 siamet	Z						•
							6925 siamet scm	A		—			—	•

#### Professional

							2920 siawood	A		—	—			A
--	--	--	--	--	--	--	--------------	---	--	---	---	--	--	---

### Contact belt



#### High Performance

							2800 siaron	Z				—	—	•
							6923 siamet hf	A		—				•

#### Industrial

							2707 siawat	SiC						M
							6925 siamet scm	A		—			—	•

### Wide belt



#### High Performance

							2800 siaron	Z				—	—	•
							2707 siawat	SiC						M
							6923 siamet hf	A		—				•

#### Industrial

							6925 siamet scm	A		—			—	•
--	--	--	--	--	--	--	-----------------	---	--	---	--	--	---	---

#### Professional

							1939 siawood	A		—	—			•
--	--	--	--	--	--	--	--------------	---	--	---	---	--	--	---

Stock removal		Surface grinding		Fine grinding			sia product	Properties						
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine								

### Wide belt



#### High Performance

							2800 siaron	Z						•
							2707 siawat	SiC						M
							6923 siamet hf	A						•

#### Industrial

							6925 siamet scm	A						•
--	--	--	--	--	--	--	-----------------	---	--	--	--	--	--	---

### Slack-of and profile belt



#### High Performance

							2747 siatur	SiC						M
							2948 siatur	A						A/M
							6923 siamet hf	A						•

#### Industrial

							2945 siatur	A						A/M
							2946 siatur	A						A/M
							6925 siamet scm	A						•

### Stroke belt



#### High Performance

							2800 siaron	Z						•
							2707 siawat	SiC						M
							6923 siamet hf	A						•

#### Industrial

							2820 siamet	Z						•
							2920 siawood	A						•
							6925 siamet scm	A						•

#### Professional

							1820 siamet	Z						•
							1920 siawood	A						•

Stock removal		Surface grinding		Fine grinding			Product	Properties						
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine								

### Power-file



#### High Performance

							2800 siaron	Z					•
							2707 siawat	SIC					•
							6923 siamet hf	A					•

#### Industrial

							2820 siamet	Z					A
							6925 siamet scm	A					A
							2945 siatur	A					A
							2946 siatur	A					•

### Rotary grinding



#### High Performance

							4815 siacut	Z					B
							2824 siaflap	Z					A
							4819 siaron	Z					A
							6923 siamet ud	A					•

#### Industrial

							4919 siaral	A					A
							1815 siatop	Z					•
							6925 siamet scm	A					•
							6300 sia-powerstrip	A					A

#### Professional

							1919 siawood	A					A
							4924 siamet	A					•

### Hand grinding



#### Professional

							1600 sianor	E						•
							2601 sianor	E						•
							2915 siarol	A						•
							6912 siafleece	A						•



Stock removal		Surface grinding		Fine grinding			sia product	Properties						
Cleaning	Heavy stock removal	Medium stock removal	Light stock removal	Finishing	Pre-polishing	Polishing	Your grinding solution	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
K16 extra-coarse	K24-K50 coarse	K60-K80 heavy medium	K100-K120 medium	K150-K220 fine	K240-K400 very fine	K500-K1200 super fine								

### Die grinder



#### High Performance

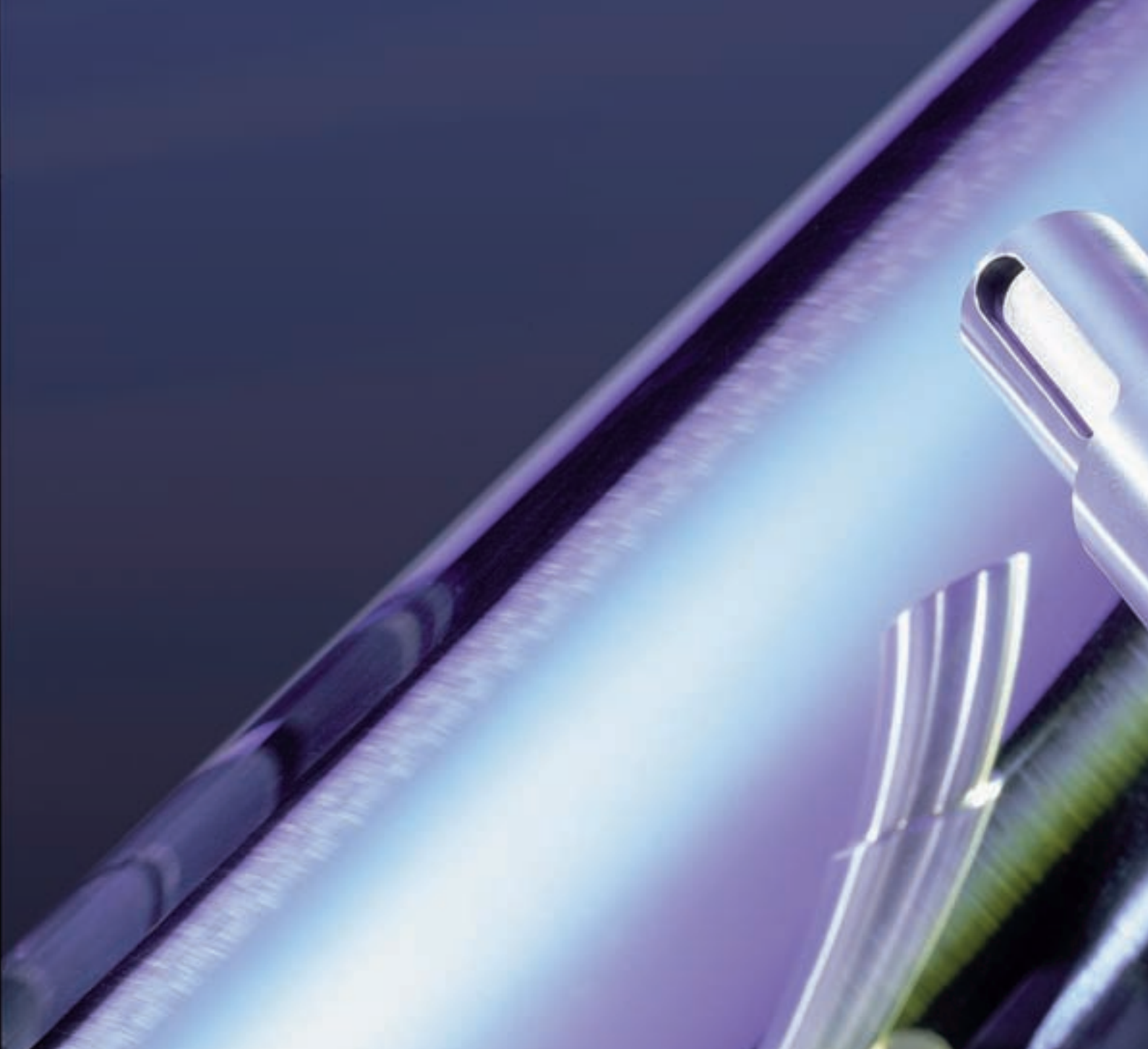
Stock removal	Surface grinding	Fine grinding	sia product	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
			9170 siamop	A	—	—	—	—	—	•
			9166 siafl. siamop	A	—	—	—	—	—	•
			9167 siamop combi	A	—	—	—	—	—	•
			6300 siastrip	SiC	—	—	—	—	—	•
			2824 spiraband	Z	—	—	—	—	—	•
			6913 siafleece hd	A	—	—	—	—	—	•
			6914 siafleece sd	A	—	—	—	—	—	•
			6300 siastrip plus	A	—	—	—	—	—	•

### Mini angle grinder



#### High Performance

Stock removal	Surface grinding	Fine grinding	sia product	Grain	Contact pressure	Material removal	Lifetime	Finish	Flexibility	Material
			2820 siafix	Z	—	—	—	—	—	•
			scm siafix	A	—	—	—	—	—	•



# Micro-Finishing



CR-Finishing® (Constant Result Finishing) is an efficient method in which every finishing task is considered part of the entire process. Micro-Finishing products have been designed specifically to suit application procedures, workpieces and materials. This ensures that the required surface results are achieved the first time.



Micro-Finishing											sia product	Properties									
100 µm (150)	80 µm (180)	60 µm (240)	50 µm (280)	45 µm (320)	40 µm (360)	30 µm (500)	20 µm (800)	15 µm (1200)	12 µm (1500)	9 µm (2000)	6 µm (2500)	5 µm (2700)	3 µm (3000)	Your grinding solution	Grain	Special polyester foil	Anti-slip coating	Slurry coated	Electrostatic spread	Wet grinding	Dry sanding



**Copper rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5910 microtec	A	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Chrome / hard chrome rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5910 microtec	A	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Zinc rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5910 microtec	A	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Hardened steel rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5210 siacarat microtec	D	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5910 microtec	A	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Plasma-coated rollers (ceramic)**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5210 siacarat microtec	D	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Rubber and plastic rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5710 microtec	SiC	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5702 microtec	SiC	125 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Teflon rollers**

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5710 microtec	SiC	75 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5702 microtec	SiC	125 µm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Micro-Finishing										Micro product	Properties	
100 µm (150)	80 µm (180)	60 µm (240)	50 µm (280)	45 µm (320)	40 µm (360)	30 µm (500)	20 µm (800)	15 µm (1200)	12 µm (1500)	9 µm (2000)	Your grinding solution	Grain
												Special polyester foil
												Anti-slip coating
												Slurry coated
												Electrostatic spread
												Wet grinding
												Dry sanding



Watch cases

											5210 siacarat microtec	D	75 µm	✓	✓	
											5910 microtec	A	75 µm	✓	✓	
											5902 microtec	A	125 µm	✓	✓	✓
											5903 microtec	A	75 µm	✓	✓	✓

Bracelets

											5210 siacarat microtec	D	75 µm	✓	✓	✓
											5910 microtec	A	75 µm	✓	✓	✓
											5902 microtec	A	125 µm	✓	✓	✓
											5903 microtec	A	75 µm	✓	✓	✓

Metallurgical test objects

											5210 siacarat microtec	D	75 µm	✓	✓	✓
											5910 microtec	A	75 µm	✓	✓	✓
											5710 microtec	SiC	75 µm	✓	✓	✓
											5902 microtec	A	125 µm	✓	✓	✓
											5903 microtec	A	75 µm	✓	✓	✓
											5702 microtec	SiC	125 µm	✓	✓	✓

Micro-Finishing										Product	Properties										
100 µm (150)	80 µm (180)	60 µm (240)	50 µm (280)	45 µm (320)	40 µm (360)	30 µm (500)	20 µm (800)	15 µm (1200)	12 µm (1500)	9 µm (2000)	6 µm (2500)	5 µm (2700)	3 µm (3000)	Your grinding solution	Grain	Special polyester foil	Anti-slip coating	Slurry coated	Electrostatic spread	Wet grinding	Dry sanding



**Crankshafts**

														5902 microtec	A	125 µm	✓	✓	✓	✓	✓
														5903 microtec	A	75 µm	✓	✓	✓	✓	✓

**Camshafts**

														5902 microtec	A	125 µm	✓	✓	✓	✓
														5903 microtec	A	75 µm	✓	✓	✓	✓

**Steering assembly parts**

														5910 microtec	A	75 µm	✓	✓	✓	✓
														5900 microtec	A	75 µm	✓	✓	✓	✓
														5902 microtec	A	125 µm	✓	✓	✓	✓
														5903 microtec	A	75 µm	✓	✓	✓	✓

**Shock absorber parts**

														5910 microtec	A	75 µm	✓	✓	✓	✓
														5900 microtec	A	75 µm	✓	✓	✓	✓
														5902 microtec	A	125 µm	✓	✓	✓	✓
														5903 microtec	A	75 µm	✓	✓	✓	✓

**Valves**

														5910 microtec	A	75 µm	✓	✓	✓	✓
														5900 microtec	A	75 µm	✓	✓	✓	✓
														5902 microtec	A	125 µm	✓	✓	✓	✓
														5903 microtec	A	75 µm	✓	✓	✓	✓

Micro-Finishing										Product	Properties										
100 µm (150)	80 µm (180)	60 µm (240)	50 µm (280)	45 µm (320)	40 µm (360)	30 µm (500)	20 µm (800)	15 µm (1200)	12 µm (1500)	9 µm (2000)	6 µm (2500)	5 µm (2700)	3 µm (3000)	Your grinding solution	Grain	Special polyester foil	Anti-slip coating	Slurry coated	Electrostatic spread	Wet grinding	Dry sanding



Hydraulic components

														5910 microtec	A	75 µm	✓	✓	✓	
														5900 microtec	A	75 µm		✓	✓	
														5902 microtec	A	125 µm	✓	✓	✓	
														5903 microtec	A	75 µm	✓	✓	✓	

Pneumatic components

														5910 microtec	A	75 µm	✓	✓	✓	
														5900 microtec	A	75 µm		✓	✓	
														5902 microtec	A	125 µm	✓	✓	✓	
														5903 microtec	A	75 µm	✓	✓	✓	

Ball bearings

														5910 microtec	A	75 µm	✓	✓	✓	
														5900 microtec	A	75 µm		✓	✓	
														5902 microtec	A	125 µm	✓	✓	✓	
														5903 microtec	A	75 µm	✓	✓	✓	



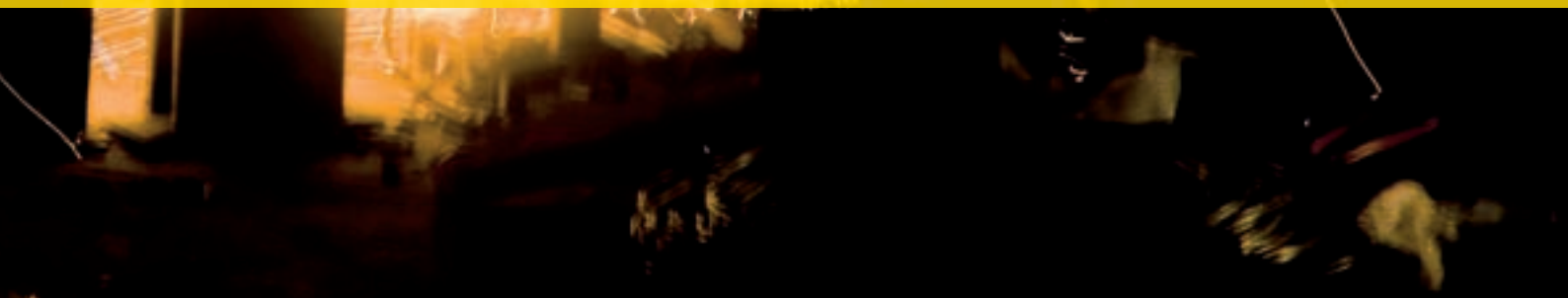


# Application engineering





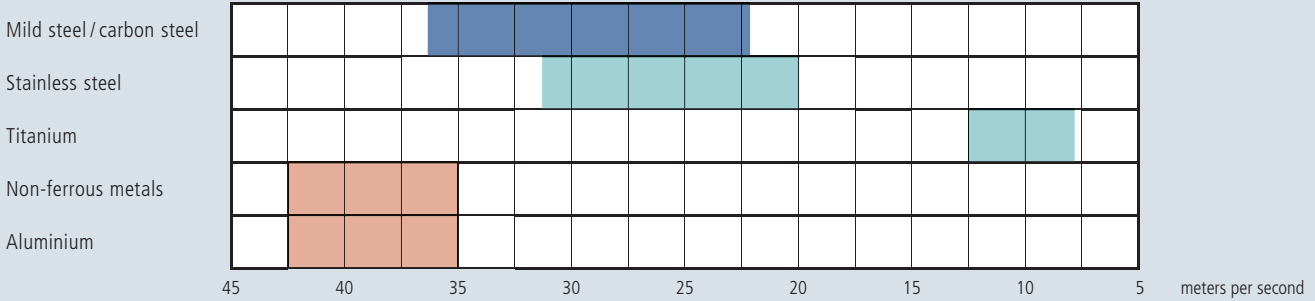
The variety of potential applications for coated abrasives and nonwoven abrasives has led to the development of numerous sanding technologies. In order to achieve perfect surface results, sanding and grinding must be considered as part of a complete system, which requires workpieces, machines, tools and applications to be optimally matched to each other.



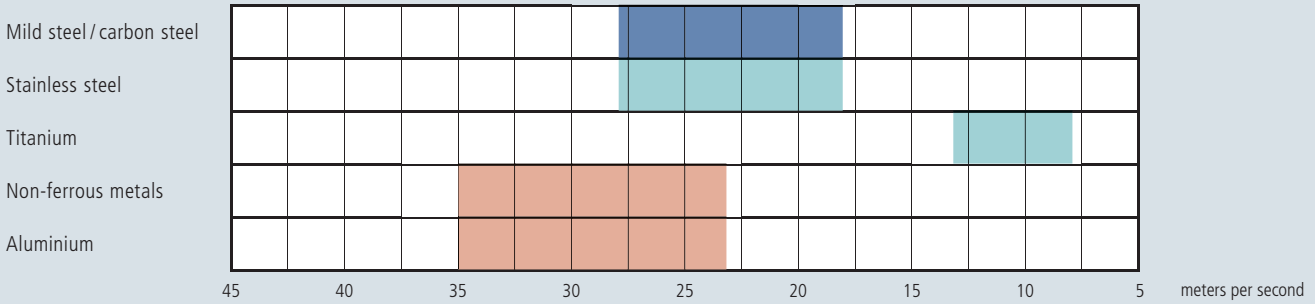
### Stationary grinders

Correct speed for excellent results.

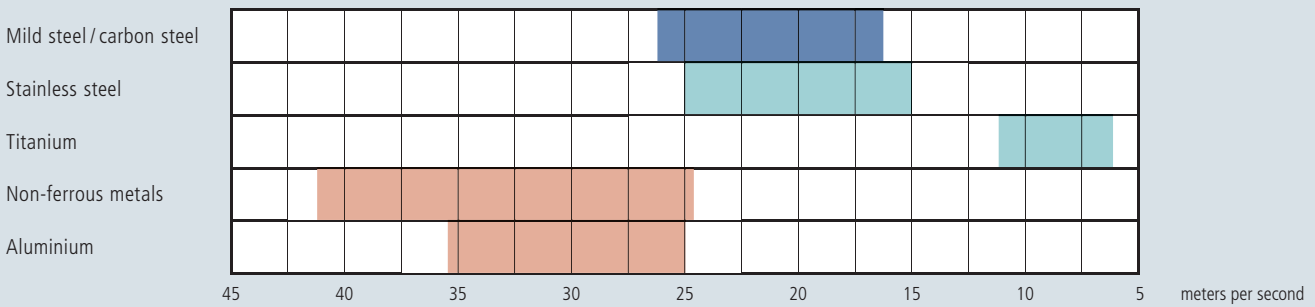
### Contact belt grinding



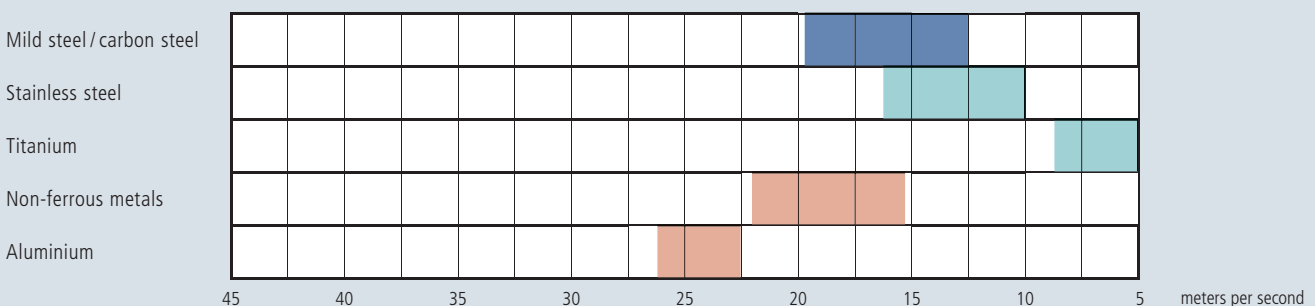
### Wide belt grinding



### Slack-of-belt and profile belt grinding



### Stroke belt grinding

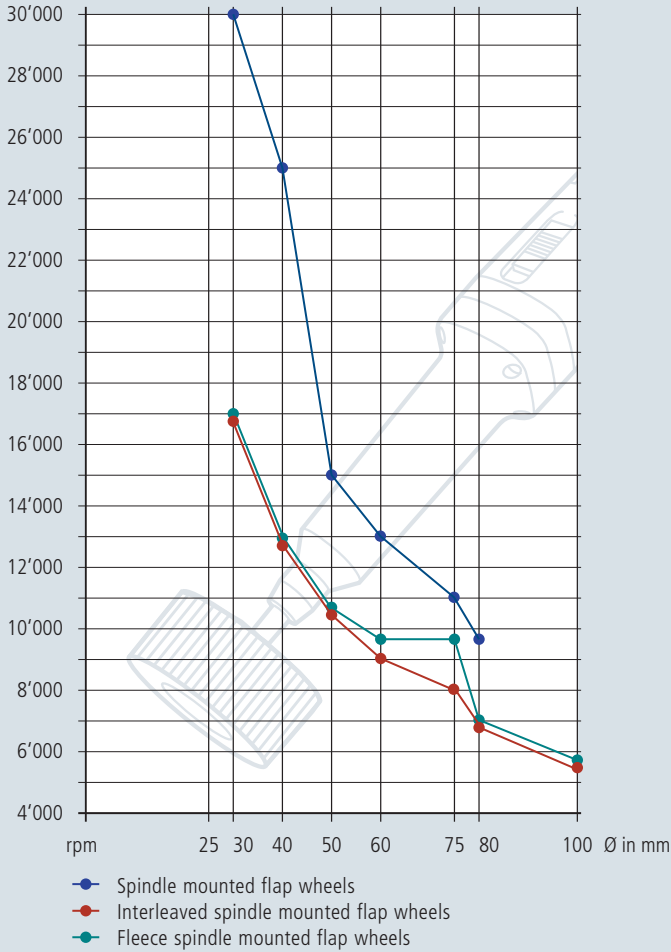




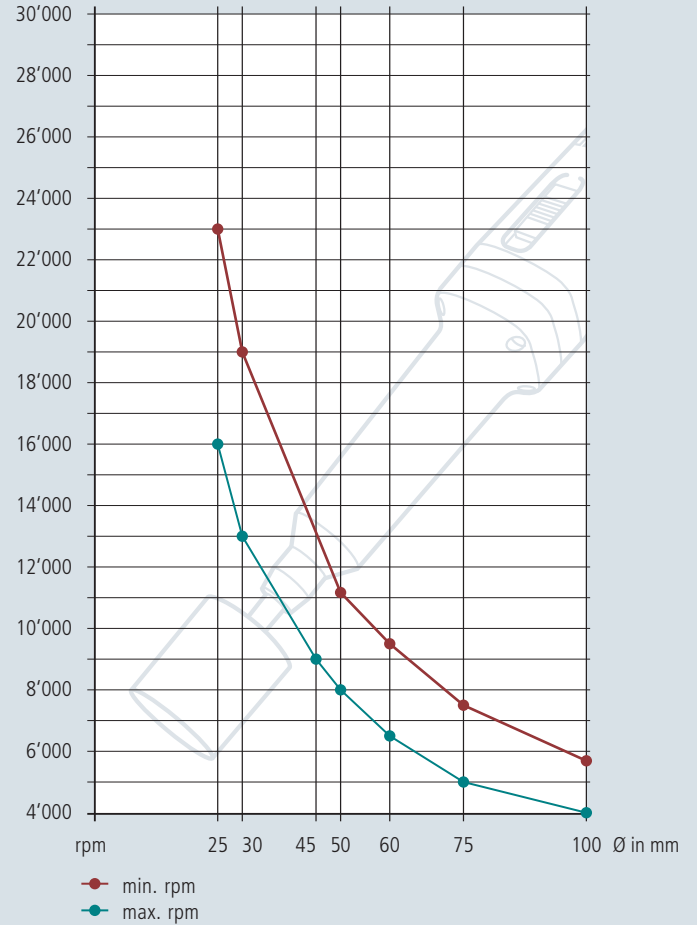
### Hand grinding machines

Recommended speed in rpm (rpm = rounds per minute).

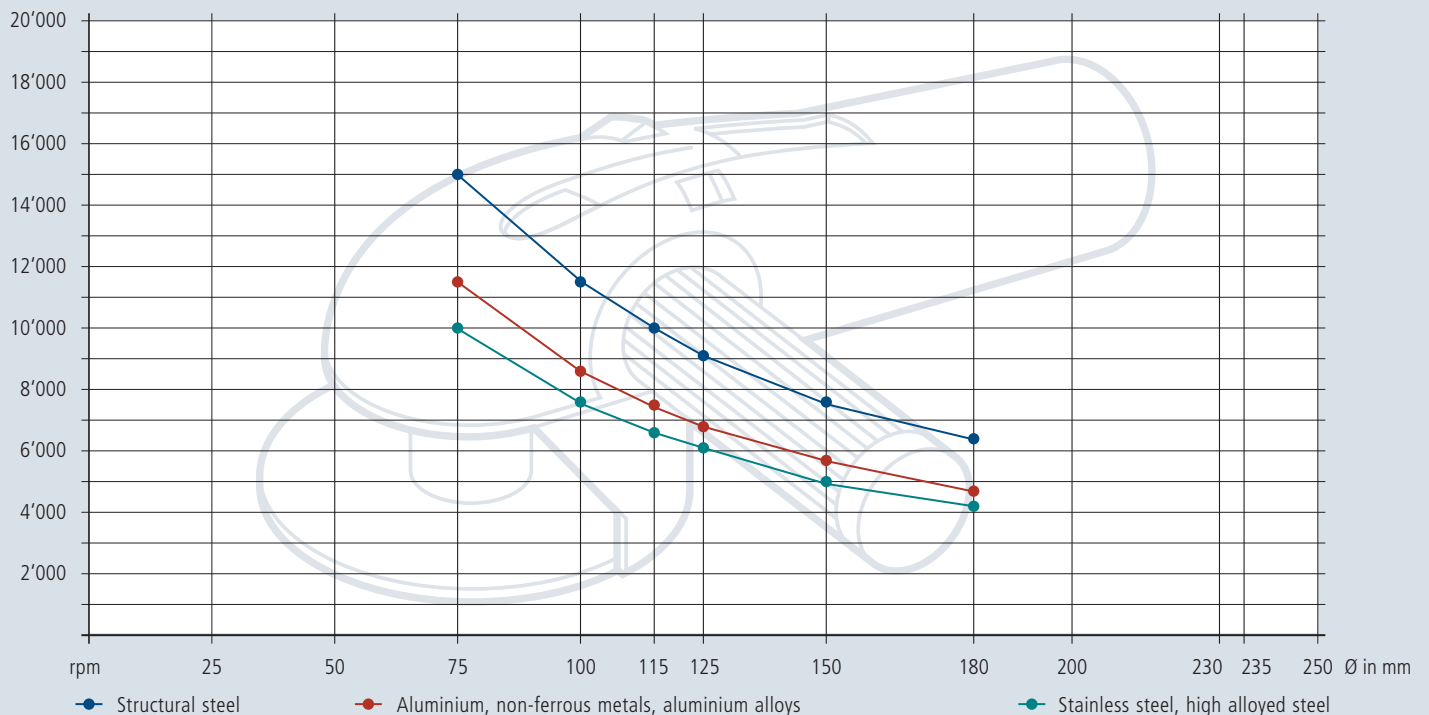
#### Flap wheels



#### Spirabelts



#### Fibre discs



## Perfect results in surface grinding through combined solution

sia scm (surface conditioning materials) are designed to be used on machines, converted as either discs or belts. Thanks to the advanced manufacturing techniques the sia scm range has the flexibility and conformability to produce a consistent finish on any work piece.

Used in combination with sia Abrasives coated products, sia scm products provide system solutions to a perfect surface in the least number of processes. sia scm products refine grind-lines in fewer steps from the finishing process, or can be used individually for surface preparation or for final finishing.

## Centerless and flat surface grinding



## Hand grinding

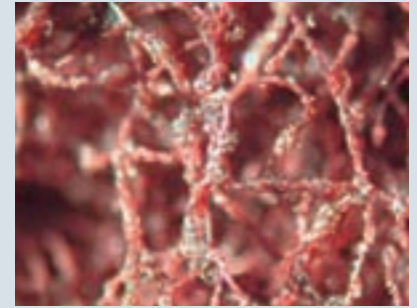


## Nonwoven abrasives

Nonwoven products are manufactured by means of a continuous treatment process in which the base fibres are carded, coated and needle-punched to form the fleece. This three-dimensional material is sprayed with a mixture of flexible resins and abrasive grits that penetrates through the fleece.

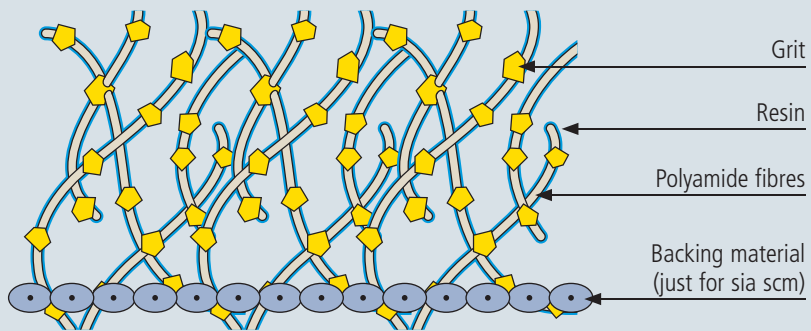
This technology has a lot of advances compared with traditionally alternatives:

- Nonwoven products are conformable.
- Uniform distribution of grit in nonwoven polyester backing gives a satin finish effect and cool cut. Consistent performance over the hole product lifetime.
- Low clogging tendency.
- May be used wet or dry. Can be used in combination with abrasive fluids.



### Microscope enlargement

A three-dimensional nonwoven abrasive manufactured using a spraying process





	Material					Application						Backing														
	Mild steel / carbon steel	Alloy and high-alloy metals	Titanium	Non-ferrous metals	Aluminium	Heavy-duty	Standard	Light	Polishing	Wet grinding	x-wt cloth / polyester	y-wt cloth / polyester	x-wt cloth / cotton	j-wt cloth / cotton	jj-wt cloth / cotton	x-wt cloth / mixed fabric	y-wt cloth / mixed fabric	b-wt paper	f-wt paper	Vulcanized fibre 0.38	Vulcanized fibre 0.65	Vulcanized fibre 0.80	Vulcanized fibre 0.84	Active additives	2nd size coat	
1600 sianor	●	●	●	●	●				●									●								
1815 siatop	●	●	●	●	●		●	●											●	●					●	
1820 siamet	●	●	●	●	●			●											●						●	
1919 siawood					●			●											●							
1920 siawood				●	●		●												●							
1939 siawood				●	●		●												●							
2510 siabite	○	●	●			●					●														●	●
2515 siabite		●	●			●					●														●	●
2546 siabite		●	●	○			●	●						●											●	●
2601 sianor	●	●	●	●					●				●													
2707 siawat	●	●	○	●	●	○	●			●																
2747 siatur		○	●	●			●	●						●											●	
2800 sianor	●	●	●	●	●	●				●	●															
2803 sianor		●	●	○		●											●	●							●	●
2815 sianor		●	●			●					●														●	●
2820 siamet	●	○	○	●	●		●										●	●							●	
2829 sianor	●			○	○	●				○		●													●	
2915 siarol	●	●	●	●	●			●					●													
2920 siawood				○	●		●					●														
2945 siatur	●	●	●	●	●		●	●					●												●	
2946 siatur	●	●	●	●	●		●	●						●											●	
2948 siatur		●					●	●						●											●	●
2980 siafin	●	●	○	○	○	●	●		●		●															
4515 siabite		●	●	○		●																	●		●	●
4815 siacut		●	●	●		●															●	●	●	●	●	●
4819 sianor	●				●	●																	●	●	●	
4919 siaral	●			●	●	●																	●	●	●	
4924 siamet	●			●	●		●														●	●	●	●	●	

● main application  
○ minor application



## Commitment



### Company

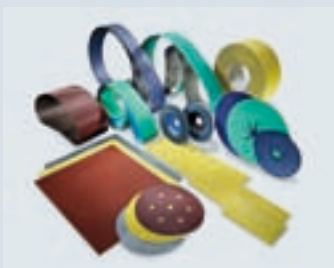
The sia Group is based in Frauenfeld, Switzerland, and is one of the world's top three suppliers of innovative abrasives. sia develops, manufactures and sells complete sanding systems tailored to specific requirements and applications of all kinds, transforming sanding into surface technology.

sia Abrasives employs about 1250 people and is represented in more than 80 countries.

### Top-quality products from Switzerland

Our careful choice of premium materials, the latest production and manufacturing equipment and sophisticated production technologies enable us to provide sanding products of the highest level. Abrasive materials from sia undergo continuous development based on demanding customer requirements and our detailed analysis of production materials. They thus represent the finest examples of Swiss precision and quality with one goal: a commitment to the perfect surface.

## Innovative abrasives



### Coated abrasives

Classic flexible abrasives and systems for conventional surface treatment on all types of material.



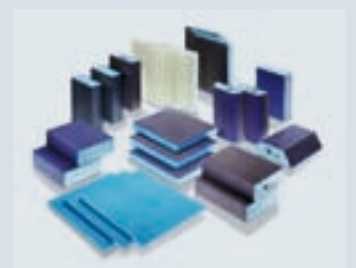
### Nonwoven abrasives

Nonwoven products for preparation and cleaning tasks and for structuring, especially on metal.



### Microabrasives

Products on special polyester film to give defined surface structures in the areas of graphics, optics and the auto industry.



### Foam abrasives

Foam sanding pads in the widest possible range of shapes and grades for precision sanding on wood, fillers, paintwork and varnish.

## Environment



### Environmental-friendly production, competent and ethical waste disposal

For many years we have concerned ourselves with the efficient use of energy and committed ourselves to protecting the environment. We have implemented many measures within our production processes to protect the air, earth and water. We use our energy and raw-material resources efficiently and carefully.

#### **We care.**

By joining the EnAW (Energy Agency for Industry) programme, we have voluntarily made a commitment to improve energy efficiency and limit our CO<sub>2</sub> emissions as part of our day-to-day operations.

#### **We take responsibility.**

As a «dry factory», we protect nature by not putting untreated industrial wastewater back into the water system (i.e. public drains). Weekly testing of additional industrial wastewater for compliance with regulations demonstrates that our wastewater is clean.

## Quality



### Choosing raw materials, setting quality standards

The comprehensive inspection programme in place in our manufacturing operations enables us to produce premium-quality products. The superior properties of sia products represent excellent value for our customers.

#### **We verify.**

We select our raw materials and their suppliers in accordance with strict criteria on quality, environmental impact and safety. Long-standing partnerships and continuous testing of raw materials ensure good-quality, reliable and fault-free materials.

#### **We continually optimise.**

Our internal process management system (PMS) records and improves important procedures and allows direct intervention in the production process where necessary. In this we can operate an active, committed opportunity-management programme.

## People



### A safe, healthy workplace

We set the standard for an accident- and hazard-free workplace. The well-being of people is an integral part of our culture and is based on OHSAS 18001 (Occupational Health and Safety Management Systems).

#### **We are clean.**

We develop products that also effectively help our customers remain healthy. We have had our finishing products tested for dust formation by the Swiss Accident Insurance Fund (SUVA). The results are impressive: the lowest dust emissions compared with our competitors' products.

#### **We set an example.**

sia Abrasives is one of the first companies in the world to comply with the new OHSAS 18001:2007 standard. We also comply strictly with the recommendations of the FEPA safety standards and publish this, together with other safety information, at [www.sia-abrasives.com](http://www.sia-abrasives.com).



#### **«REACH» Regulations for chemicals**

REACH (Registration, Evaluation and Authorisation of Chemicals) concerns a European Community regulation dealing with chemicals and has been in force since June 2007. Its purpose is to gather all necessary information regarding the properties of chemical substances and to examine their use and the associated risks to humans and the environment. We ensure compliance with REACH by keeping up-to-date records of all chemical materials and substances and by taking all necessary steps to meet our REACH obligations.





[www.sia-abrasives.com](http://www.sia-abrasives.com)

## Coated abrasives

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1600 sianor	9, 15, 20
2601 sianor	9, 15, 20
2915 siarol	9, 15, 20

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2601 sianor	9, 15, 20
2915 siarol	9, 15, 20

Belts	Page
1820 siamet	6, 7, 12, 13, 19
1920 siawood	19
1939 siawood	18
2510 siabite	6, 12, 13, 14
2515 siabite	12, 13, 14
2546 siabite	13
2707 siawat	12, 13, 14, 18, 19, 20
2747 siatur	19
2800 siaron	6, 7, 8, 12, 13, 14, 18, 19, 20
2803 siaron	12, 13, 14
2815 siaron	12, 13, 14
2820 siamet	6, 7, 8, 12, 13, 14, 18, 19, 20
2824 spiraband	9, 15, 21
2829 siaron	6, 7, 8, 18
2920 siawood	18, 19
2945 siatur	7, 13, 19, 20
2946 siatur	7, 8, 13, 19, 20
2948 siatur	7, 13, 14, 19
2980 siafin 3D	6, 8, 12, 14

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1815 siatop	8, 14, 20
1919 siawood	20
4515 siabite	14
4815 siacut	14, 20
4819 siaron	8, 20
4919 siaral	20
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2824 siaflap	8, 20
2828 siaflap	14
9170 siamop	9, 15, 21

siafix	Page
2820 siafix	9, 15, 21

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6912 siafleece	9, 15, 20

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6923 siamet hf	6, 7, 8, 12, 13, 14, 18, 19, 20
6925 siamet scm	6, 7, 8, 12, 13, 14, 18, 19, 20

Discs	Page
6913 siafleece hd	9, 15, 21
6914 siafleece sd	9, 15, 21
6926 siamet ud	8, 14

Flap wheel tools	Page
6300 sia-powerstrip	8, 14, 20
6300 siastrip	9, 21
6300 siastrip plus	15, 21
9166 siafleece siamop	9, 15, 21
9167 siamop combination	9, 15, 21

siafix	Page
scm siafix	9, 15, 21

hf = hyperflex  
 scm = surface conditioning materials  
 ud = ultradisc  
 hd = heavy duty  
 sd = super duty

## Microabrasives

	Sheets	Sheets SAF	Rolls	Belts	Discs	Discs SAF	Page
5210 siacarat microtec							24, 25
5910 microtec							24, 25, 26, 27
5710 microtec							24, 25
5900 microtec							26, 27
5902 microtec							25, 26, 27
5903 microtec							25, 26, 27
5702 microtec							24, 25

SAF = self adhesive foil



sia Abrasives Industries AG  
CH-8501 Frauenfeld  
Tel. +41 52 724 41 11  
**[www.sia-abrasives.com](http://www.sia-abrasives.com)**

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