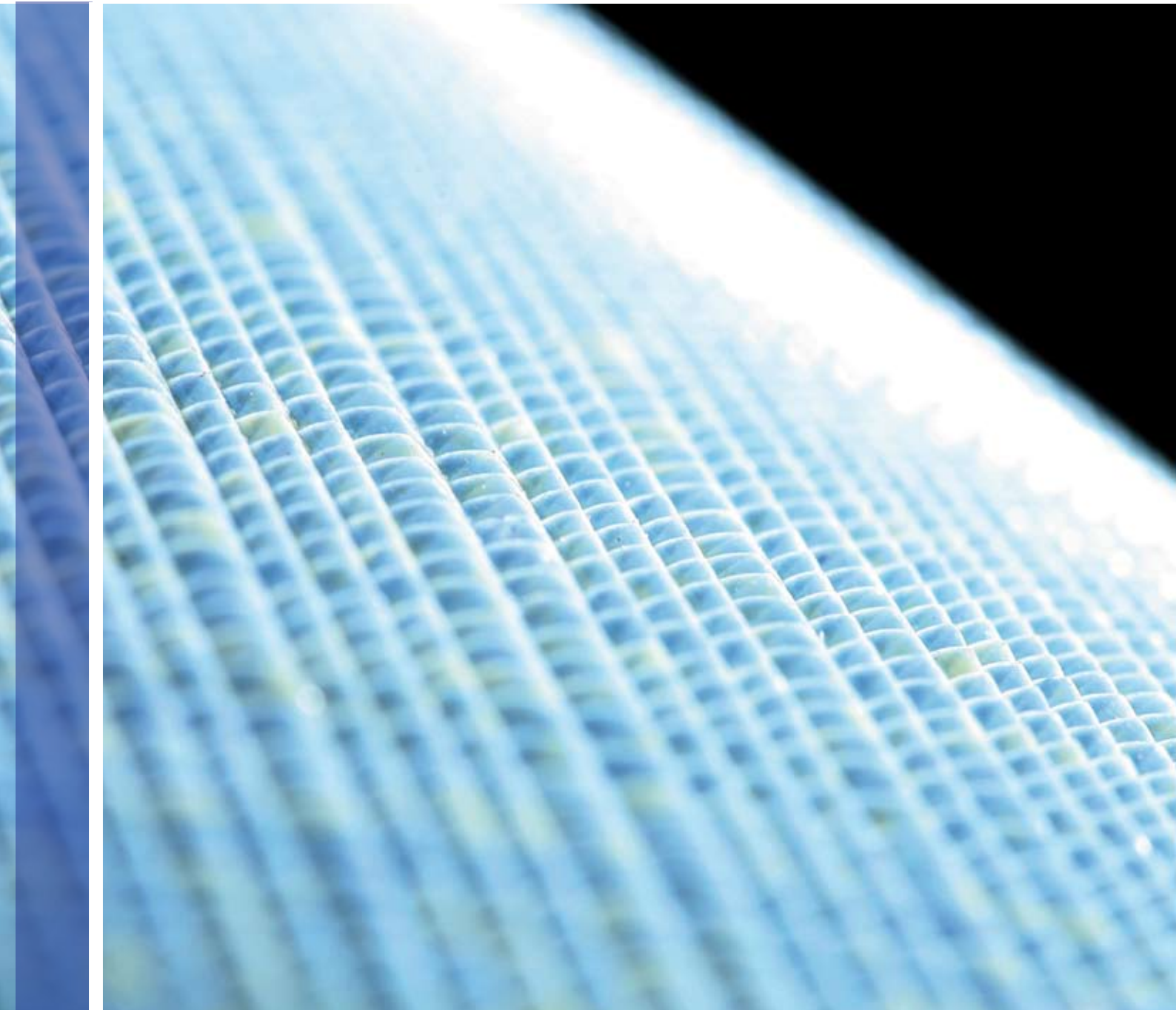
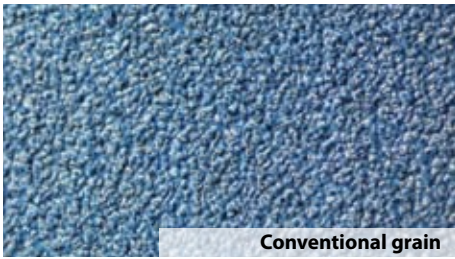


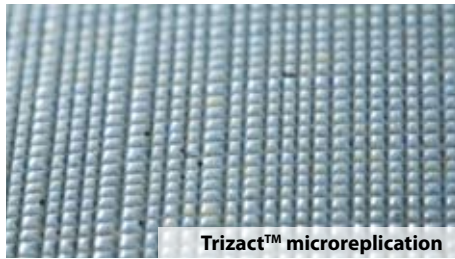
# Trizact™

MICROREPLICATION





Conventional grain



Trizact™ microreplication



Trizact™ macroreplication

## Trizact™ microreplication

Microreplication is the repeated forming of microscopic, perfectly calibrated three-dimensional structures. This technique guarantees perfectly preformed and calibrated abrasive grains in a pyramid shape. These pyramidal abrasive grains are identical in height. This ensures a limited penetration of the abrasive grains in the work piece, eliminating the danger of uneven edges or deep scratches.

## Trizact™ macroreplication

These are three-dimensional structures uniformly distributed over the entire surface. These are made from compressed Trizact™ grains that guarantee consistent and predictable material removal and finishing.

## Area of application

Trizact™ has been specially developed for finishing more difficult processing materials such as titanium, cobalt, stainless steel, as well as for all exotic alloys in aerospace, aviation and medical industry. We also have very successful applications for finishing, copper, bronze, aluminium, composite materials and synthetics.

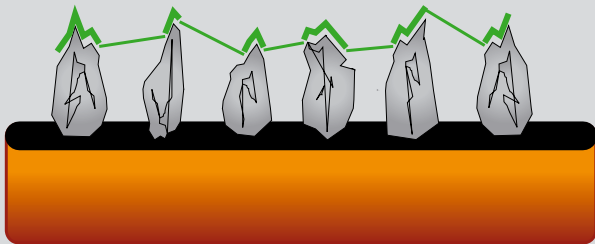
Please note: Trizact™ has been developed for finishing work; it is not a deburring product.

The 237AA and 217EA (microreplication) are characterised by their capacity to perfectly finish materials with fewer steps, little working pressure and a constant and replicable finish.

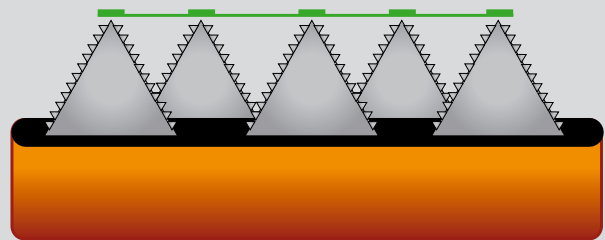
The 337DC and 953FA have the capacity to grind and finish in one operation.

The 217EA, 237AA and 337DC have been developed for dry use. The 953FA has a waterproof support and has been developed for use with coolants.

## Conventional grain versus pyramidal

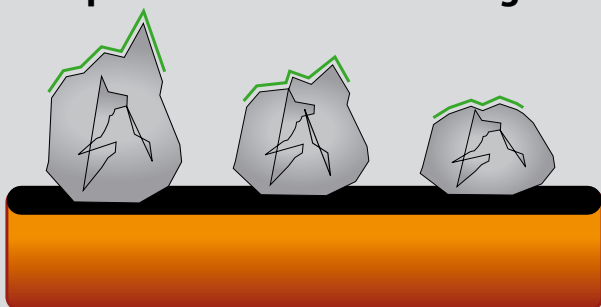


Conventional, irregular grain shape with a risk of excessive scratching

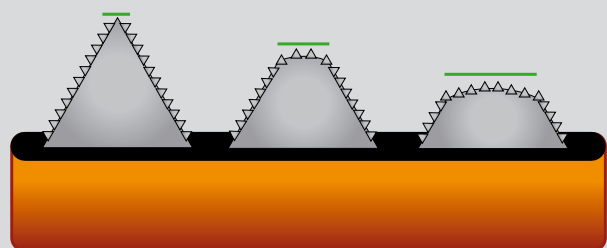


The perfect, uniform grain structure guarantees a homogenous and replicable finish

## Wear pattern for conventional grain versus pyramidal



Wear pattern for a conventional grain



Wear pattern for a Trizact™ grain (always new abrasive grains on the surface)



## Properties

- abrasive grains with equal height
- always the same number of abrasive grains available
- always the same shape and depth of abrasion
- equal wear of the abrasive grains
- always new, identical abrasive grains available
- higher stock removal at lower pressure

## Benefits

- no danger of abrasive scratches that are too deep
- equally distributed abrasive pressure
- uniform and consistent finish
- faster result at lower working pressure
- long product life
- burr-free finish
- significantly shorter abrasive process
- fewer grinding steps needed
- drastic reduction in work for post-polishing
- less loss after quality control
- cost-saving per finished work piece
- generates less waste
- uses less energy

## Significant successes have been achieved in following branches of industry:

- inox finishing
- medical implants
- turbine blades
- industrial tools
- tank and boiler construction
- door and window fittings
- bronze and copper tubing
- composite materials





Trizact™ 237AA

## Qualities and grain indication

Trizact™ grain size is expressed in micron preceded by the letter A. You will find a conversion table to the European Fepa-scale below.

Trizact™	Fepa	Trizact™	Fepa
A300	P80	A45	P400
A160	P120	A30	P800
A100	P200	A16	P1400
A65	P280	A6	P2000

## Application recommendations

The belt speed, transit speed, working pressure and hardness of the contact wheel are crucial parameters for a good result. Moreover, a change in one parameter also affects the working of the other 3 other parameters and consequently, the result of the finishing and the performance. When in doubt, consult your Cibo application-expert.

### Belt speed

- stainless steel 25 - 35 m/s
- nickel alloys 25 - 35 m/s
- titanium 10 - 15 m/s
- aluminium 20 - 25 m/s
- carbon steel 20 - 25 m/s

### Working pressure

It is best to keep the working pressure low. Ideally, this should be between 0.6 and 1.5 kg/cm<sup>2</sup>, without however, going above 2 kg/cm<sup>2</sup>. A higher working pressure will negatively influence the lifetime of the belt but increase the removal speed.

### Contact wheel

Abrasion and structuring: 40 to 65° Shore without or with small grooves. Finishing or polishing: 20 to 40° Shore with a full or, ideally, a layered wheel. A softer contact wheel produces a better Ra-value.

### Transit speed

It is best to keep the movement of the operator with the machine or the working piece as regular as possible. The more regular it is, the more uniform the finish. For an automatic transit, Cibo recommends a speed of approximately 4 metres per minute.



Trizact™ 337DC on Finimaster



Trizact™ 217EA on Finitube



Trizact™ 953FA

## Properties

	finishing	stock removal	flexibility backing	required working pressure	wet abrasion possible
Trizact™ 217EA	•••••	•••	•••••	••	—
Trizact™ 237AA	•••••	•••	•••	•••	—
Trizact™ 337DC	•••	•••••	•••••	•••	—
Trizact™ 953FA	•••	•••••	••	•••••	•••••

••••• very high score    •• low score  
••••• high score        • very low score  
••• average score

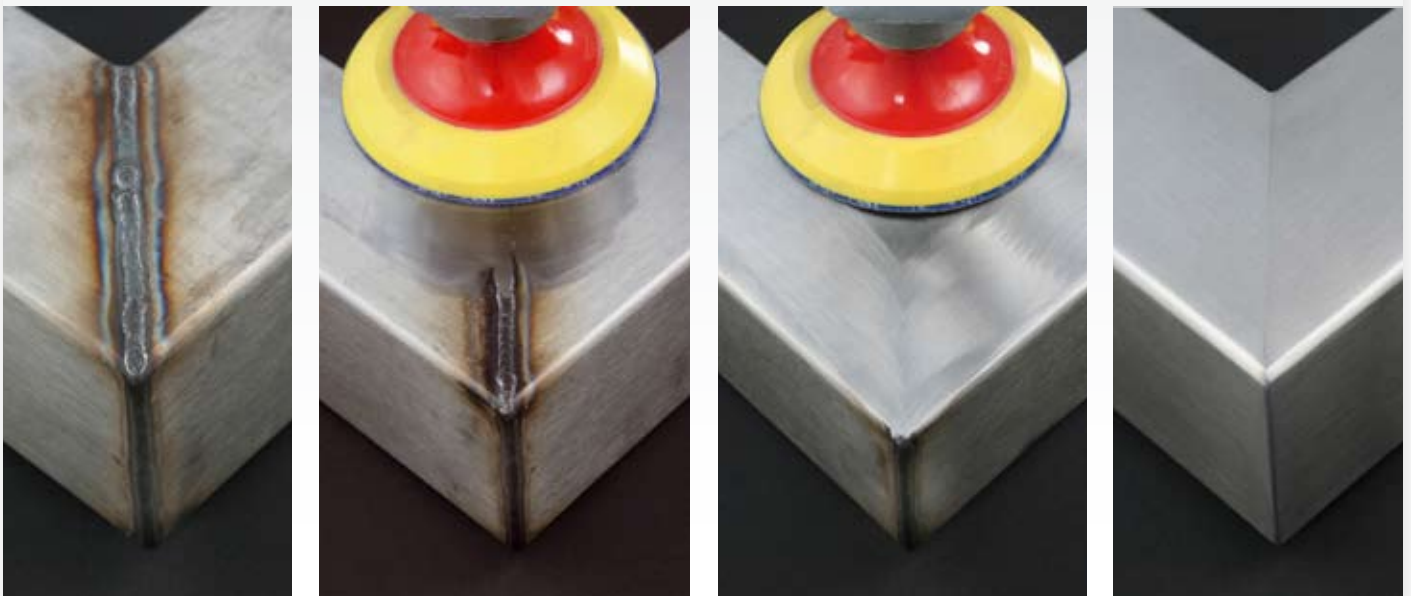
## Applications

	217EA	237AA	337DC	953FA
inox finishing	•	•	•	•
steel, high-carbon steel	•	•	•	
special types of steel, cobalt	•	•	•	
nickel alloys	•	•	•	•
bronze, copper, brass, zinc	•	•	•	•
titanium		•		
aluminum	•	•		
chrome	•	•		•
synthetics, polyester, polycarbonate	•	•		

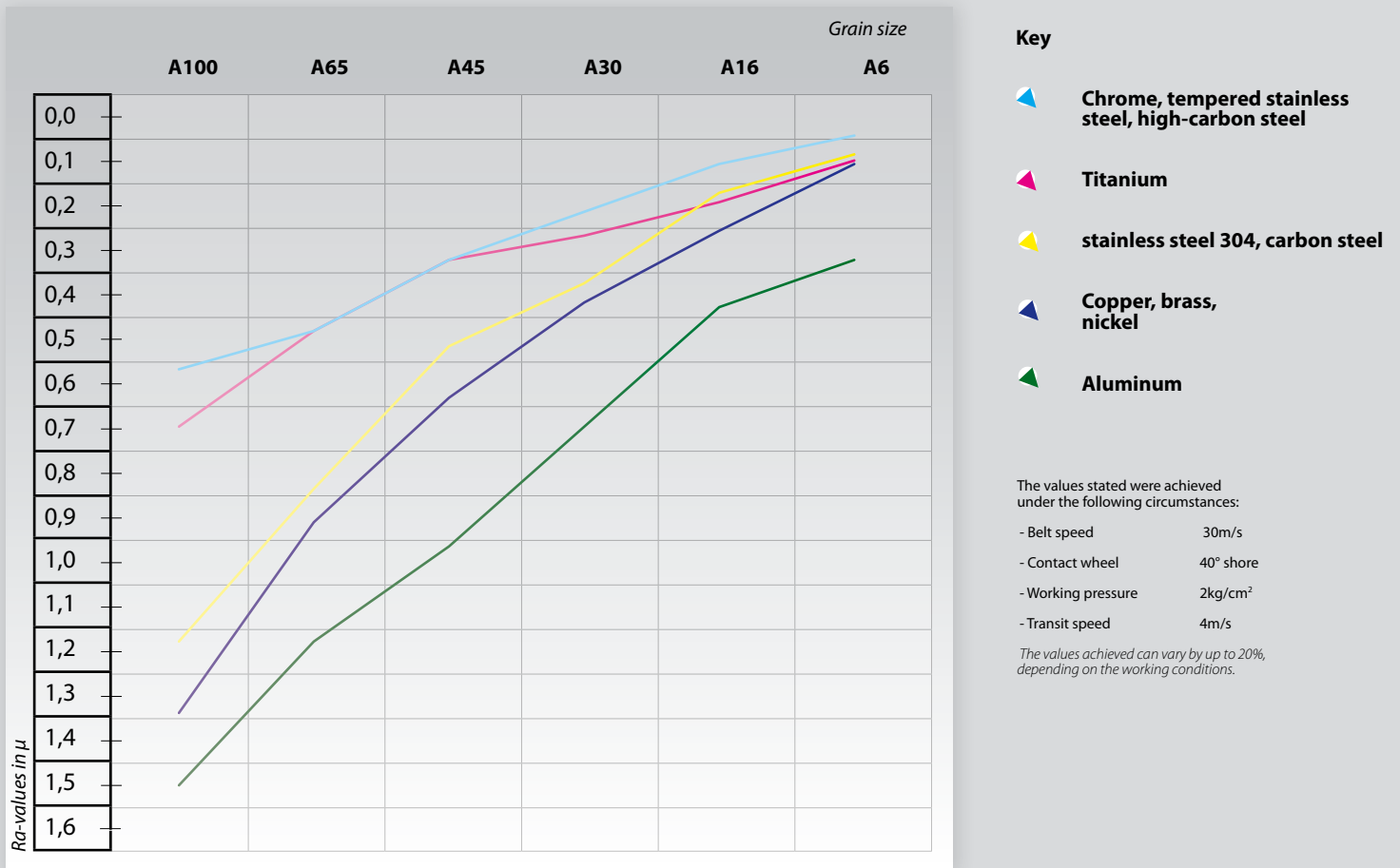
### 237GR - Trizact™ grip discs

The perfect positioned pyramid structure of Trizact™ removes TIG welds with ease.

The 237GR also leaves behind a very fine scratch structure, which is perfectly suited for further processing into a brushed structure and high gloss finish. The high quality of the pre-polish saves you time and costs.



## Ra-values

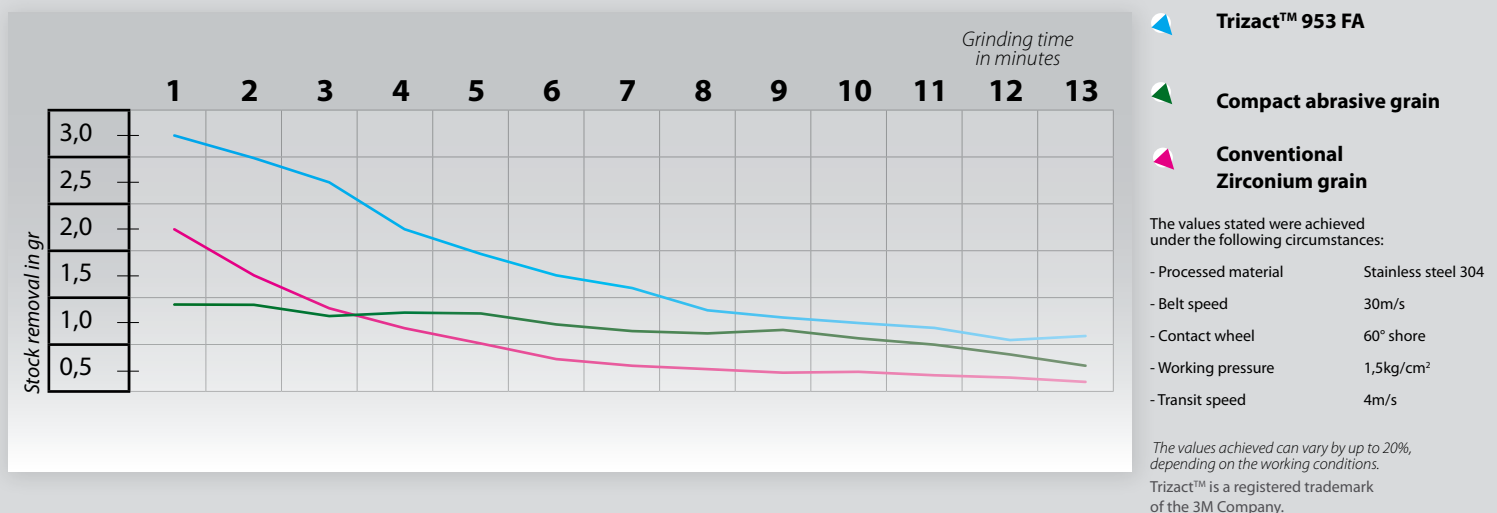


Ra-value indicates the average depth of a scratch. The average depth of the scratches determines the quality of the finish.



## Stock removal of Trizact™ (953FA)

versus classic abrasive materials and compact grain


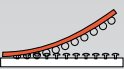

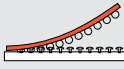



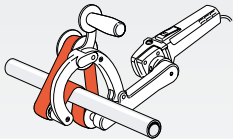



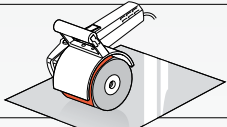



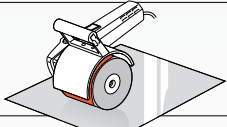

**More information?  
An obligation-free demonstration?  
Contact Cibo:  
+32 (0) 16 61 85 85  
[info@cibo.be](mailto:info@cibo.be)  
or your usual dealer**

# STANDARD RANGE CIBO

GRIP DISCS	DIMENSIONS	TYPE	GRIT	FEPa		ORDER NO.
 	∅ 115mm	<b>237GR</b>	A160	P120	50	237GR/160/S104
			A100	P200	50	237GR/100/S104
			A65	P280	50	237GR/65/S104
			A45	P400	50	237GR/45/S104
			A30	P800	50	237GR/30/S104
			A16	P1400	50	237GR/16/S104
			A6	P2000	50	237GR/6/S104
 	∅ 125mm	<b>237GR</b>	A160	P120	50	237GR/160/S105
			A100	P200	50	237GR/100/S105
			A65	P280	50	237GR/65/S105
			A45	P400	50	237GR/45/S105
			A30	P800	50	237GR/30/S105
			A16	P1400	50	237GR/16/S105
			A6	P2000	50	237GR/6/S105

FINITUBE - endless belts	DIMENSIONS	TYPE	GRIT	FEPa	ORDER NO.	
 	675X40mm	<b>217EA</b>	A65	P280	10	217EA/65/675X40
			A45	P400	10	217EA/45/675X40
			A30	P800	10	217EA/30/675X40
			A16	P1400	10	217EA/16/675X40
	675x40mm	<b>337DC</b>	A300	P80	10	337DC/300/675x40

NEW FINIMASTER sleeves for inflatable wheel	DIMENSIONS	TYPE	GRIT	FEPa	ORDER NO.	
 	385X100mm	<b>337DC</b>	A300	P80	10	337DC/300/385X100
			A100	P200	10	337DC/100/385X100
			A65	P280	10	337DC/65/385X100

BASIC FINIMASTER sleeves for inflatable wheel	DIMENSIONS	TYPE	GRIT	FEPa	ORDER NO.	
 	293X100mm	<b>337DC</b>	A300	P80	10	337DC/300/293X100
			A100	P200	10	337DC/100/293X100
			A65	P280	10	337DC/65/293X100

## MADE TO ORDER

	FEPa	217EA	237AA	237GR*	337DC	953FA
<b>A300</b>	P80				337DC/300/#	953FA/300/#
<b>A160</b>	P120		237AA/160/#	237GR/160/#		953FA/160/#
<b>A100</b>	P200		237AA/100/#	237GR/100/#	337DC/100/#	953FA/100/#
<b>A65</b>	P280	217EA/65/#	237AA/65/#	237GR/65/#	337DC/65/#	953FA/65/#
<b>A45</b>	P400	217EA/45/#	237AA/45/#	237GR/45/#		953FA/45/#
<b>A30</b>	P800	217EA/30/#	237AA/30/#	237GR/30/#		
<b>A16</b>	P1400	217EA/16/#	237AA/16/#	237GR/16/#		
<b>A6</b>	P2000		237AA/6/#	237GR/6/#		


\* 237GR are grip discs. The qualities above can be supplied by CIBO in the most popular shapes and belt dimensions. For belts, replace # by the required belt dimension. For disc shapes, replace # by the required diameter.


Your local dealer

Produced by

**cibo**  
time saving abrasives

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