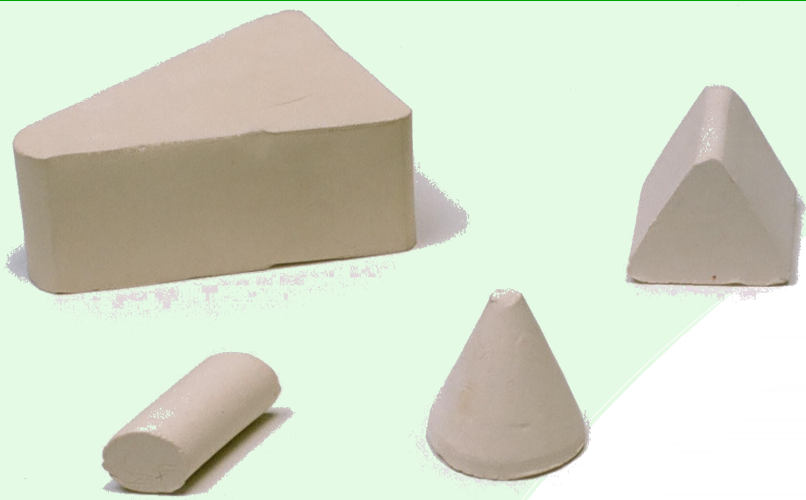




C.I.M.A.

CERAMIC AND SOLUTION FOR VIBROFINISHING





40 years

of Ceramic media

CIMA began production in 1969, thanks to the experience built up by its founder, *Claudio Baccialone*.

The company, now run by the third generation of the family, is pleased to present its latest catalogue.

The production area covers 8000 m² and is located in a strategic position, just a few minutes from Orio al Serio international airport and the most important motorways of northern Italy.



With over 40 years' experience, we are at the forefront in the production of ceramic media, chemical products and vibrofinishing solutions.

CIMA implements and maintains a quality management system complying with Standard *ISO 9001/2008* for the:

*"Design, Production and Sale of pre-formed ceramic media and ceramic supports.
Production and Sale of chemical auxiliaries for vibrofinishing"*

The quality of our products is guaranteed by strict controls throughout the production process, and by technical tests carried out in our laboratories.

That's why CIMA is the ideal partner for your production process solutions.

Quality

always





ceramics & *technology*

Triangles, balls, ellipses, cones, cylinders, pyramids these are just some of the shapes in our range, all available from the honing mixtures through to the abrasive ones. We also produce ceramics for super-polishing processes, and high-density ceramics for chemical finishing.

Our modern, automated production systems are continuously monitored by the most up-to-date technology, to guarantee constantly high quality levels and the best technical standards throughout the production process, from the smallest pieces (1.5mm) to the largest (60mm).



Chemical products and solutions

Our ceramics can work with water alone but, for all those customers who require additives to improve the process, we have developed a range of chemical products to meet your varying needs. We produce solutions for degreasing, polishing and surface protection, as well as pastes and products for vibropolishing and chemical finishing.



Environment

a constant

priority

Using a ceramic abrasive for vibrofinishing not only offers technical advantages, but also lessens the environmental impact. Our ceramics, in fact, are produced with 100% European raw materials, all of a natural origin and obtained from certified suppliers to guarantee a top quality product that's also a *Friend of Nature*.

The chemical production uses raw materials from the best European producers, working in total respect of the European Community safety and environmental Standards.



our
laboratories

We have a modern laboratory and test room where different vibrofinishing machines are used to develop and test our products.

The CIMA technology and experience are at your service to study or improve your vibrofinishing processes, and to carry out sampling tests

Our technicians can boast long-term experience in this field, and will be happy to advise you on the most suitable solutions for your own specific needs.



APPLICATIONS

CERAMIC		DEBURRING	RECOMMENDED FOR THE REMOVAL OF BURR CAUSED BY SHEARING, PRESSING AND FUSION
		RADIUSING	APPLICATION TO BEVEL AND CHAMFER BURR, CORNERS AND ANGLES
		SMOOTHING	TREATMENT TO IMPROVE SURFACE ROUGHNESS
		VIBROPOLISHING	SUPER-FINISHING WITH LOW ROUGHNESS VALUES AND SPARKLING SURFACES
CHEMICAL		DEGREASING	CHEMICAL/CERAMIC APPLICATION FOR THE REMOVAL OF OILS, GREASES AND EMULSIONS
		BALL BURNISHING	PROCESS USING PORCELAIN OR STAINLESS STEEL BALLS TO BUFF/DEGREASE METALS
		CHEMICAL FINISHING	APPLICATION OF SMOOTHING AND SUPER-FINISHING USING CHEMICAL ACCELERANTS

SHAPE

CIMA offers a wide range of geometric shapes, varying according to the customer's technical requirements. It is essential to choose the right geometric shape in order to obtain the best end result on the piece. Geometric details like holes, grooves and channels must be carefully examined to prevent any problems of sticking and separation

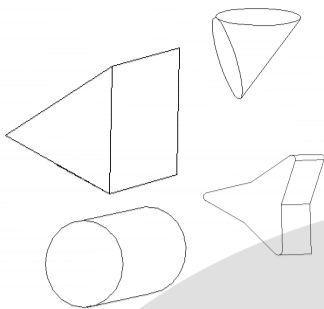


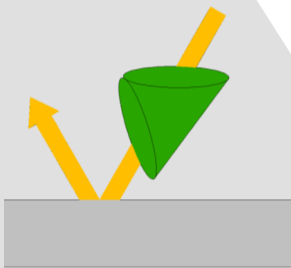
TABLE SHOWING MINIMUM AND MAXIMUM VALUES FOR EACH SHAPE

SHAPE	MINIMUM	MAXIMUM	SHAPE	MINIMUM	MAXIMUM
TRIANGLE	3	60	CONE	15	40
CYLINDER	1.5	30	PYRAMID	38	/
ELLIPSE	8	30	ARROW	10	20
TRI-STAR	4	30	DROP	10	25
STAR	10	45	BALL	4	12
RHOMBUS	35	50			

CUT	LENGTH	Minimum 3 mm Maximum 60 mm
	STRAIGHT CUT	For more delicate processing with a better finish
	ANGLE CUT 30° / 40°	Specific cut to improve the <i>contact</i> , touching even the most difficult points

Specific WEIGHT

The specific weight determines the friction force of the ceramic on the surface of the piece, and consequently its processing times and finish quality. For this reason, we have developed not only standard ceramics but also others with different specific weights which, depending on the type of paste, can produce a *honing*, *super-abrasive* or *super-polishing* effect



ABRASIVE strength

The percentage and granulometry of the abrasive determine the degree of removal of material in line with the surface roughness. Our warehouse contains 300 tonnes of different types of abrasive - SOFT and HARD - in various granulometries from coarse grain to micrograin, to satisfy every possible finishing requirement. More specifically: brown ruby corundum, pink corundum, silicon carbide and aluminium oxide.

MIN																MAX	
N	FAS	TK 2	SA	WE	ASR	EVO	TK5	A	AGG	KFR	KFR GG	S	SGG	BROWN	PINK	BR 4	

POLISHING strength


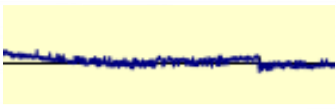
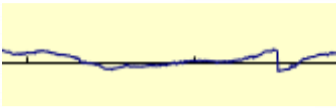

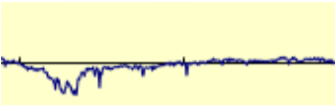

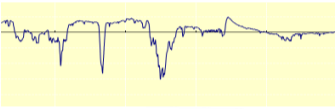
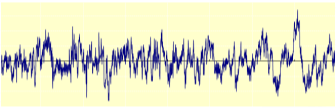
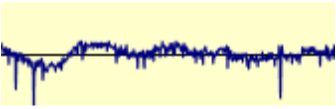
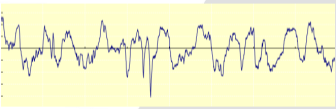
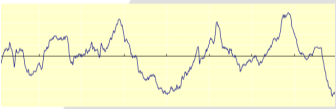
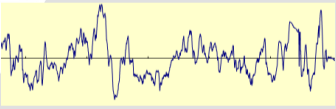
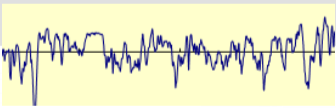
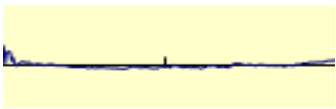



The **KERABLANK** porcelain and the high density **BG**, added to pastes and chemical products, were developed for the vibropolishing and chemical finishing processes, where a low degree of roughness is needed along with highly polished surfaces.

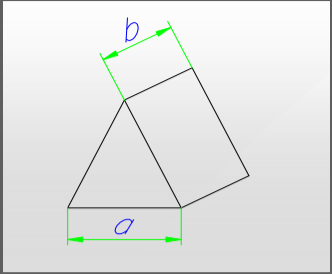
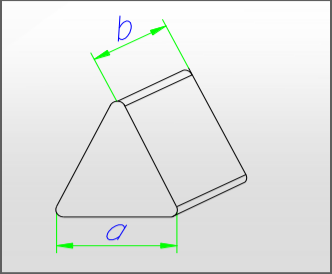
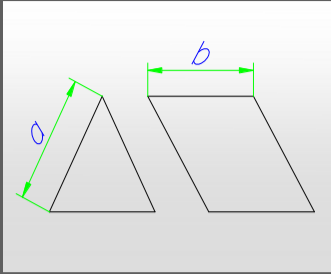
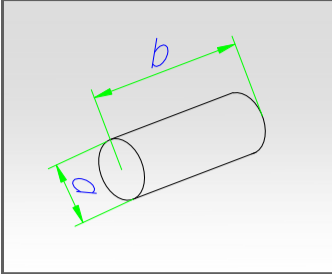
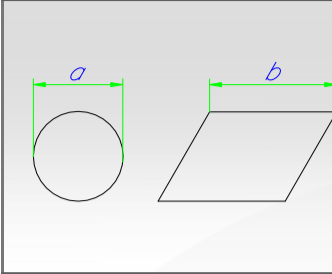
	SPECIFIC WEIGHT	ADDITIVES	
KERABLANK	3.0 Kg/l	Abrasive pastes/ Polishing pastes	+ Polishing and/or protective liquid compounds
BG	3.5 Kg/l	Chemical accelerants	+ Polishing and/or protective liquid compounds

PRE RUN-IN SERVICE AVAILABLE UPON REQUEST

CHEMICAL compound

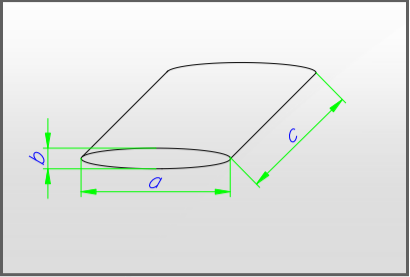
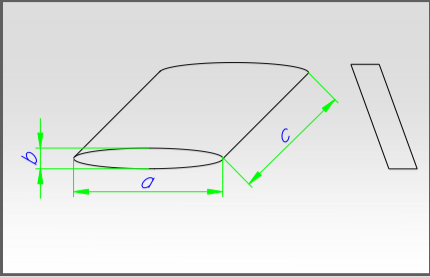
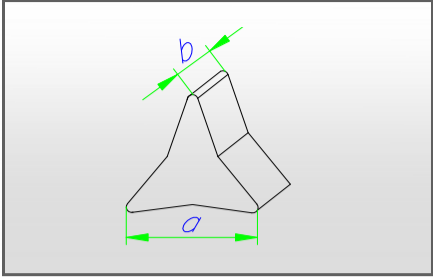
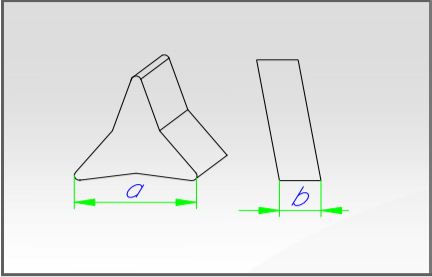
The combined chemical product and ceramic ensures a better performance level, keeping the surface clean and improving the contact with the piece being treated. We have created a range of products with different characteristics suited to the individual applications, such as: *degreasers for use on oils and emulsions*, *deoxidisers*, *polishes*, *surface protecters* and products for processes using recirculating water. We also produce *pastes* and additives for vibropolishing and chemical finishing processes.

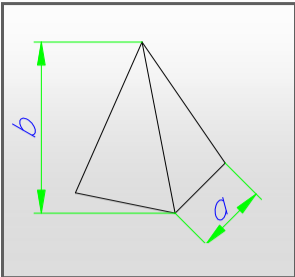
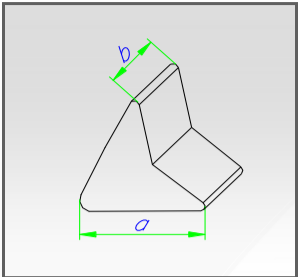
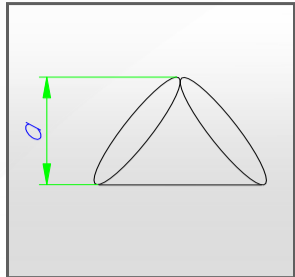
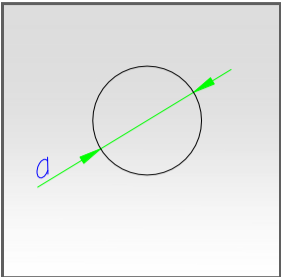
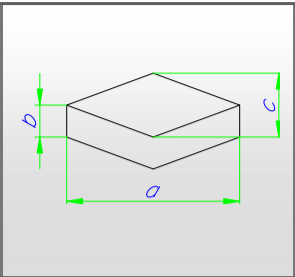
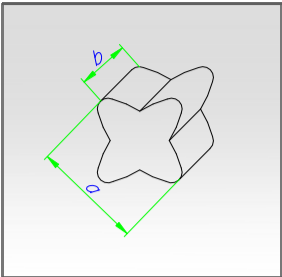
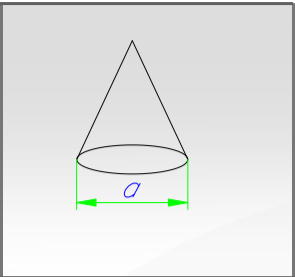
CODE	TYPE	ROUGHNESS	MOHS	SPECIFIC WEIGHT - Kg/l	STRENGTH									
N	NO ABRASIVE		7.3	2.37										
FAS	SMOOTHING		7.4	2.44										
TK 2	SEMI ABRASIVE		7.5	2.44										
SA	SEMI ABRASIVE		7.5	2.44										
WE	MEDIUM ABRASIVE		7.6	2.44										
ASR	MEDIUM ABRASIVE		7.6	2.55										
EVO	MEDIUM ABRASIVE		7.7	2.56										
TK 5	ABRASIVE		7.9	2.58										
A	ABRASIVE		7.9	2.59										
AGG	ABRASIVE		7.9	2.60										
PB	STRONG ABRASIVE		7.3	2.20										
KFR	STRONG ABRASIVE		7.9	2.61										
KFR GG	STRONG ABRASIVE		7.9	2.61										
S	SUPER ABRASIVE		7.9	2.61										
SGG	SUPER ABRASIVE		7.9	2.61										
BROWN	IPER ABRASIVE		7.9	2.59										
PINK	IPER ABRASIVE		7.9	2.60										
BR 4	IPER ABRASIVE		7.9	2.75										
PORCELLANA sienitica	SOFT POLISHING PORCELAIN		7.5	2.60										
KERABLANK	HIGH DENSITY POLISHING PORCELAIN (WHITE)		8.4	3.00										
BG	HIGH DENSITY POLISHING (BLACK)		8.5	3.50										
CERA PLAST	SMOOTHING POLISHING		7.2	2.30										

		TRIANGLE	ROUNDED TRIANGLE	TRIANGLE A/C	CYLINDER	CYLINDER A/C
type	geometry					
		a x b	a x b	a x b	a x b	a x b
N		03 x 03	09 X 10	03 X 10	1,5 X 5	1,5 X 6
FAS		04 x04	13 X 13	04 X 10	2 X 5	2 X 6
TK 2		05 x 05	25 X 25	05 X 10	03 x 10	03 X 06 (08) (10) (12)
SA		06 x 06	32 X 32	06 X 06 (10)	04 X 08	04 X 06 (08) (10) (12)
WE		07 x 07		07 X 07 (10)	06 X 10	05 X 06 (08) (10) (12)
ASR		08 x 08		08 X 08	07 X 10	06 X 06 (10) (12) (15)
EVO		10 x 10		10 X 10	08 X 12	07 X 10 (12) (15) (20)
TK 5		12 x12		12 X 12	10 X 12	08 X 12 (15) (20) (25)
A		13 x 13		15 X 15	12 X 15	10 X 12 (15) (20) (25)
AGG		15 x 15		15 X 20	15 X 17	12 X 25 (30)
KFR		18 x 18		20 X 20	20 X 25	15 X 25 (30)
KFR GG		20 x 20		25 X 25	25 X 30	18 X 27
S		25 x 25		30 X 30	30 X 35	20 X 20 (25) (30)
SGG		30 x 30		32 X 32		25 X 25 (30)
BROWN		32 x 32		34 X 34		30 X 30 (40)
PINK		34 x 34		40 X 40		
BR4		40 x 40		45 X 30		
		45 x 40		50 X 30		
		50 x 50		50 X 50		
		60 X 20		60 X 30		
		60 x 50				
PORCELLANA SIENITICA		03 X 03 04 X 04 06 X 06 10 X 10		03 X 06 04 X 06 06 X 10 10 X 12	03 X 06 04 X 08 06 X 12	03 X 06 04 X 08 06 X 10 (12) (15) 08 X 15
KERABLANK		03 X 03 04 X 04 06 X 06 10 X 10 12 X 12		03 X 06 04 X 08 06 X 10 10 X 10 12 X 12	1,5 x 5 02 X 08 (10) 03 X 08 (10) (12) 04 X 10 (12) 06 X 12 (15) 07 X 12 (15) 08 X 12 (15) 10 X 10 (12) (15)	1,5 X 6 02 X 06 (08) 03 X 06 (08) (10) 04 X 08 (10) (12) 06 X 10 (12) (15) 07 X 12 (15) 08 X 12 (15) 10 X 10 (12) (15)
BG		03 X 03 04 X 04 06 X 06 10 X 10		04 X 08 06 X 10 (12) 10 X 10 (12) 20 X 10 45 X 12	02 X 06 (08) 03 X 06 (08) 04 X 10 (12) 06 X 12 (15) 10 X 15 (20) 15 X 20 (25)	02 X 06 (08) 03 X 06 (08) 04 X 10 (12) 06 X 12 (15) 10 X 15 (20) 15 X 20 (25)
PB		07 X 07 12 X 12 15 X 15 20 X 20 25 X 25 30 X 30 32 X 32 34 X 34 40 X 40 50 X 50		10 X 10 15 X 15 20 X 20 25 X 25 30 X 30	10 X 15 (20) 15 X 20 (25) 20 X 20 (25) (30) 25 X 25	10 X 15 (20) 15 X 20 (25) 20 X 20 (25) (30) 25 X 25
CERAPLAST		07 X 07 10 X 10 12 X 12 20 X 12 20 X 20		07 X 12 10 X 12 (15) 15 X 20 (25) 20 X 20	07 X 12 (15) 10 X 15 (20) 15 X 20 (25) 20 X 20 (25) (30)	07 X 12 (15) 10 X 15 (20) 15 X 20 (25) 20 X 20 (25) (30)

Furthermore ceramic media: HDG / GOMMA / KFRB / PINK-SB / PB 16 / BR 7 / TK 10 / SS

CIMA IS AT YOUR DISPOSAL TO DESIGN AND DEVELOP CUSTOMISED CERAMICS

		ELLIPSE	ELLIPSE A/C	TRI-STAR	TRI-STAR A/C
type	geometry				
		a x b x c	a x b x c	a x b	a x b
N		08 X 03 X 08 10 X 5 X 10 (15) 12 X 5 X 12 (15) 15 X 7 X 15 (20) (25) 16 X 8 X 16 (20) (25) 20 X 9 X 20 (25) 25 X 10 X 25 (30) 30 X 12 X 30 (35)	08 X 03 X 08 08 X 03 X 10 10 X 05 X 10 12 X 05 X 12 15 X 07 X 15 16 X 08 X 15 20 X 09 X 20 20 X 09 X 25 25 X 10 X 20 25 X 10 X 25 30 X 10 X 30 30 X 10 X 35	04 X 04 06 X 06 10 X 10 12 X 12 15 X 15 20 X 20 25 X 25 30 X 30	04 X 06 04 X 08 06 X 06 06 X 10 10 X 10 10 X 12 10 X 15 12 X 12 12 X 15 15 X 10 15 X 15 15 X 20 15 X 25 20 X 10 20 X 20 20 X 25 25 X 15 (25) (30) 30 X 12 (15) (30)
FAS					
TK 2					
SA					
WE					
ASR					
EVO					
TK 5					
A					
AGG					
KFR					
KFR GG					
S					
SGG					
BROWN					
PINK					
BR4					
PORCELLANA SIENITICA		10 X 5 X 10 15 X 7 X 15	10 X 5 X 10 15 X 7 X 15		
KERABLANK		08 X 3 X 08 08 X 3 X 10 10 X 5 X 10 15 X 7 X 15 20 x 5 x 20	08 X 03 X 08 08 X 03 X 10 10 X 5 X 10 15 X 7 X 15 20 x 5 x 20	03 X 03 04 x 04 04 X 06 06 X 10 10 X 10	03 X 03 04 x 04 04 X 06 06 X 06 10 X 10
BG		08 X 3 X 08 08 X 3 X 10 10 X 5 X 10 15 X 5 X 15 20 X 9 X 20 25 X 10 X 25	08 X 3 X 08 08 X 3 X 10 10 X 5 X 10 15 X 5 X 15 20 X 9 X 20 25 X 10 X 25	03 X 03 04 X 04 04 X 06 06 X 10 10 X 10 10 X 12	03 X 03 04 X 04 04 X 06 06 X 10 10 X 10 10 X 12
PB		15 X 7 X 15 20 X 9 X 20 25 X 10 X 25	15 X 7 X 15 20 X 9 X 20 25 X 10 X 25		
CERAPLAST		10 X 5 X 15 15 X 5 X 15 20 X 9 X 20 25 X 10 X 25	10 X 5 X 15 15 X 5 X 15 20 X 9 X 20 25 X 10 X 25		

PYRAMID	ARROW	DROP	BALL	RHOMBUS	STAR	CONE
						
<u>a x b</u>	<u>a x b</u>	<u>a</u>	<u>a</u>	<u>a x b x c</u>	<u>a x b</u>	<u>a</u>
38 X 40	10 X 10 12 X 12 15 X 10 18 X 18 20 X 12	10 12 15 18 25	4 5 6 7 8 10 12	35 X 25 X 25 50 X 30 X 30	10 X 10 (20) 25 X 20 45 x 15	15 20 30 40
			4 6 7 8 10 12			
		10 12 15 18 25	4 6 7 8 10 12			15 20
						15 20 30 40
38 x 40						15 20 30 40

LIQUID CHEMICAL products

		CHARACTERISTICS				PROCESS				SURFACE			
		PASSIVATING	PICKLING	DEGREASING	POLISHING	BALLS	CERAMIC	PORCELAIN	RECIRCULATION	FERROUS	STAINLESS STEEL	COPPER/BRASS	ALUMINIUM
CODE	PH VALUE 5%												
CLEANER 70	7 - 8	◆		◆◆◆	◆◆	◆	◆◆◆	◆◆		◆	◆◆	◆◆	◆◆
CLEANER 80	6			◆◆◆	◆◆	◆	◆◆◆	◆◆			◆◆◆	◆	◆◆◆
CLEANER 90	6			◆◆◆	◆◆	◆	◆◆◆	◆◆			◆◆◆	◆◆◆	◆◆◆
CLEANER 95	8 - 9	◆◆◆		◆◆◆	◆◆	◆	◆◆◆	◆◆		◆◆◆	◆◆		◆
CLEANER 95/PR	9 - 10	◆◆◆		◆◆◆	◆		◆◆◆	◆◆		◆◆◆			
CLEANER 120	8.5 - 9	◆◆		◆◆◆	◆◆	◆	◆◆◆	◆◆		◆◆◆	◆◆		
KORALLE S EVOL	7			◆◆◆	◆◆◆	◆◆◆				◆	◆◆	◆◆	◆◆
WELLE DESOX	4		◆	◆◆◆	◆◆◆	◆◆◆					◆◆◆	◆◆	◆◆◆
LICHT EXTRA	4		◆	◆◆◆	◆◆◆	◆◆◆					◆◆◆	◆◆◆	◆◆
LUZERN SPECIAL	4 - 5		◆	◆◆◆	◆◆◆	◆◆◆		◆			◆◆◆	◆	◆◆◆
LUZERN NEUTRAL	7			◆◆◆	◆◆◆	◆◆◆				◆	◆◆	◆◆	◆◆
LUZERN EVOL	4 - 5		◆	◆◆◆	◆◆◆	◆◆◆		◆			◆◆◆	◆◆	◆◆◆
LUZERN FE	9 - 10	◆◆◆		◆◆	◆◆◆	◆◆◆		◆		◆◆◆			
RE 49/2	9 - 10	◆◆◆		◆◆			◆		◆◆◆	◆◆◆	◆		
RE 90	8 - 9	◆◆◆		◆◆			◆		◆◆◆	◆◆◆	◆◆		
RE 100	7 - 8	◆◆		◆◆			◆		◆◆◆	◆◆	◆	◆	◆

♦ min - ♦♦ medium - ♦♦♦ max

CIMA IS AT YOUR DISPOSAL TO DESIGN CUSTOMISED COMPOUNDS

CHEMICAL FINISHING

CODE	PH	CHARACTERISTICS	
CHEMICAL 04	2	Powder	ACID-BASED CHEMICAL HONING AGENT FOR FERROUS METALS
CHEMICAL 04/B	9	Liquid	CHEMICAL ACTIVATOR FOR STAINLESS STEEL
CHEMICAL 06	2	Liquid	CHEMICAL HONING AGENT FOR FERROUS METALS
CLEANER DS85	11	Liquid	PROTECTIVE POLISH USED AFTER HONING PROCESS
CLEANER BG	11	Liquid	PROTECTIVE POLISH USED AFTER HONING PROCESS

WATER TREATMENT

CODE	PH	CHARACTERISTICS	
ACTIVEFLOC BI		Powder	POWDER FLOCCULANT
ACTIVEFLOC CA		Powder	POWDER FLOCCULANT WITH ACTIVATED CARBONS
ACTIVEFLOC AP 358		Liquid	CATIONIC LIQUID FLOCCULANT
ACTIVEFLOC AP 258		Liquid	CATIONIC LIQUID FLOCCULANT

PASTES

CODE	PH VALUE 0.5%	ABRASIVE STRENGTH	SMOOTHING STRENGTH	POLISHING STRENGTH	CHARACTERISTICS
AP 090 PASTE	9	◆◆◆			SUPER-ABRASIVE PASTE FOR GRINDING PROCESSES
AP 081 PASTE	9	◆◆◆	◆		SUPER-ABRASIVE PASTE FOR FINE GRINDING PROCESSES
AP 050 PASTE	9	◆◆	◆◆◆		STANDARD ABRASIVE PASTE
AP 020 PASTE	9	◆	◆◆◆		ABRASIVE PASTE FOR REMOVAL AND SMOOTHING PROCESSES
MP 001 PASTE	9		◆◆	◆◆	HONING AND POLISHING PASTE FOR SOFT METALS
MP 044 PASTE	9 - 10		◆◆	◆◆◆	POLISHING PASTE WITH SLIGHT SMOOTHING QUALITY
MP 101 PASTE	9		◆	◆◆◆	POLISHING AND SMOOTHING PASTE
MP 805 PASTE	9			◆◆◆	SUPER-POLISHING PASTE
MP 710 PASTE	9			◆◆◆	POLISHING PASTE FOR HARD METALS

◆ min - ◆◆ medium - ◆◆◆ max

CIMA IS AT YOUR DISPOSAL TO DESIGN CUSTOMISED COMPOUNDS

POWDERS

CODE	PH	CHARACTERISTICS
SME POWDER	8	SUPER-ABRASIVE POWDER FOR GRINDING PROCESSES
AS 5 POWDER	8	ABRASIVE POWDER FOR BRASS AND ALUMINIUM AND STAINLESS STEEL ALLOYS
FE 30 POWDER	10	ABRASIVE POWDER FOR FERROUS MATERIALS
FE 10 POWDER	10	HONING AND POLISHING POWDER FOR FERROUS MATERIALS
DGS POWDER	11	ALKALINE-BASED DEGREASING POWDER
BRIL POWDER	5	DEGREASING AND POLISHING POWDER

..... AND

CODE		CHARACTERISTICS
GM 12 16 20 30		CORN COB GRANULES
GN 16 20 30 80		NUTSHELL GRANULES
AISI 420 STEEL BALLS		STAINLESS STEEL BALLS FOR BALL BURNISHING - AVAILABLE IN VARIOUS DIAMETERS
WOOD STICKS		BEECH-WOOD STICKS FOR DRY POLISHING

NOTES



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