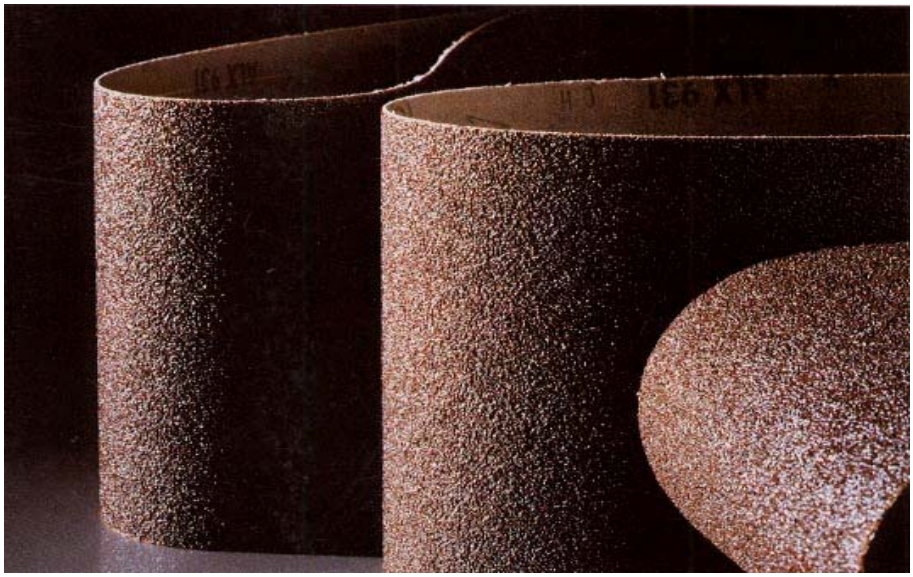
Coated abrasives

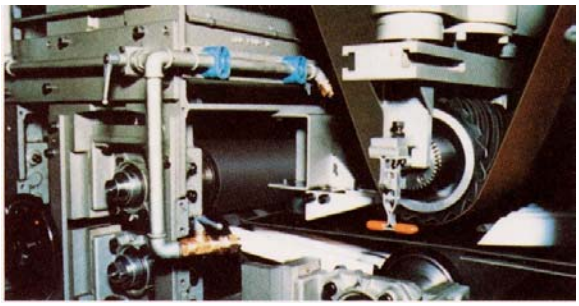
Treatment of Metal



Due to our experiences gained in more than 100 years we can offer first-class products for all grinding tasks. In the following descriptions we give you important advice for the optimal usage. We recommend high-quality abrasives, already used in practice, for the economical treatment of metal in the tables.

Our experiences are primarily meant to orientate yourself when choosing the best suitable abrasive. Therefore, we recommend you to consult our application engineers if you have any special requirements. You will get advice for free and you will have the chance to make grinding experiments in your company.

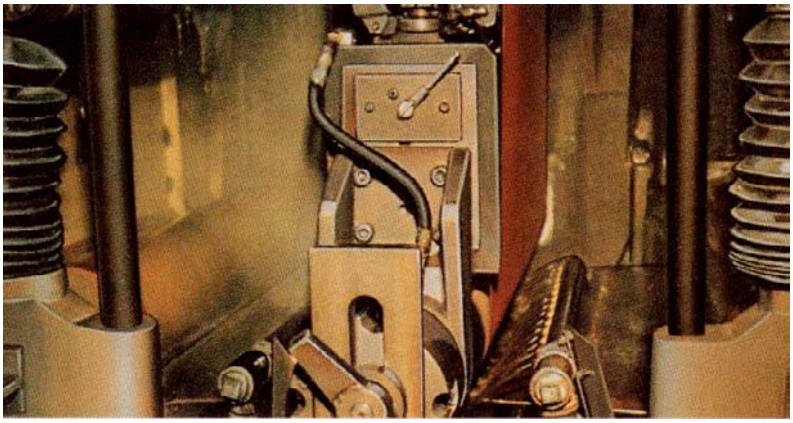
Surface Grinding Machine



Angle Grinder

Round Grinding Machine

Wide Belt Grinding Machine



The quality of the surface depends on the quality of the abrasive belt!

The Surface:

The quality of the surface is next to the characteristics of the material, processing and styling determining for the success in selling. Even if the surface often does not stay visible it must be faultless in its composition for further processing.

The „Carborundum Schleifmittelwerke GmbH“ develop high-quality products for you. These are produced with the latest production methods and are being accurately controlled before delivery. We will always have a wide range of standard products and –dimensions in stock for you. Our application engineers will be at your disposal for consulting or grinding-experiments.

Delivery form, Components, Bonds:

The „Carborundum Schleifmittelwerke GmbH“ delivers abrasive paper, waterproof abrasive paper, coated abrasives, waterproof coated abrasives and abrasive fibre for all grinding processes of metal processing. Depending on the purpose of use it is electrostatically strewn with corundum, white corundum, zirconium corundum or silica carbide in rolls, bends, strips, belts, wide-belts, discs, drums and cones. The bonds have been developed with the latest insights and are made from glue or resin, depending on the purpose of use

Accessories and Additives:

A good grinding power is supported by particular accessories and additives. As a result we also deliver field-tested accessories like grinding discs and grinding oil next to our established abrasives.

Grinding Discs:

Surface finish, chipping and lifetime are largely determined by the right ratio of co-ordination of fibre- and grinding discs to the work piece. Based on our experiences we recommend our polyurethane-grinding discs, deliverable in six different types. The exceptional durability of the material, high strength properties under alternating flexural stress and flexibility guarantee the best grinding result and high lifetime.

Grinding Oil:

Very valuable is the use of abrasive belt grinding oils. It avoids the untimely decomposing of the abrasive belts, endures their life-time, increases the grinding quality, provokes a chilly cut and decreases grinding costs. The abrasive belt grinding oils which we distribute are first-quality products.
We deliver them in two different types:

- Type NF for the treatment of aluminium and all non-iron metals.
- Type FE for the treatment of iron and steel.

Both kinds of oil are delivered in handy sprays, cans or drums for spray coaters.

Speed of the Belt:

The ideal speed of the belt depends on different factors like the model of the machine, the basic material and abrasives. Generally we can offer you the following guidelines:

Titan	10-19m/s
Hard metal	8-24 m/s
rust-free steel	14-36m/s
carbon steel	32-38m/s
Grey-cast iron	30-45m/s
Aluminium	35-42m/s
gun metal, bronze, brass(messing)	32-45m/s
high-alloyed metal	8-36 m/s

Our experienced application engineers will be at your disposal if you need assistance in special cases.

Practical Experiences:

- **The right storage of coated abrasives**
  Please store coated abrasives carefully. The ideal temperature would be 18-22 °C for optimal storage and a relative humidity of air of 45-65%. These conditions should be constant. Please store coated abrasives always in their original packing in free-standing, open *shelves* that air can access all the time. Avoid storing near windows, doors, direct insolation, near the heating, damp walls or on damp floors.

- **Results of wrong storing!**
  Please keep in mind that wrong storage can result in enormous loss of efficiency. The coated abrasives respond heavily on strong variations of the humidity of air. They take their surrounding air in case the humidity of air increases. If it falls it also takes the humidity of the base. Such a change often causes warping of the base and can result in tangible loss of quality.

  In case the humidity of air is too high it is harmful for abrasives that are bonded with glue. The reason is, that a high humidity of air softens the glue compared with the warmth which is produced from grinding and results in a loss of abrasive firmness. Equally harmful is, to store abrasives near heating or in direct insolation. The results are embrittling and warping. Latter, especially with paper belts and discs.

- **Guidelines for the handling of Abrasive Belts**
  Please unpack the abrasive belts carefully. Check before applying them on the grinding machine if the band edges are still faultless. Abrasive belts should only be applied when the machine is completely unbent. Please check after bending if the abrasive belt is running correctly by turning the machine on for a short period of time. Afterwards you can turn the machine on completely.

We recommend to unbend abrasive belts if the machine is standing still longer, especially when using paper belts.

The „FEPA-Security Recommendations" for the right use of coated abrasives contain further advice for the right use of the tools. Please ask for the recommendations and the „Carborundum Schleifmittelwerke GmbH" will place them at your disposal for free.

Recommendations for Abrasives

	Wide Belt Grinding Machine (plates and strip metal from 500 mm width) Strip metal grinding machines up to 500 mm width	**Long Strip Grinding Machine** (plates, large area moulded pulps)	**Surface Grinding Machine** manually and automatically (profiles, (Profile, punching, cast parts, forging, deep drawn components)	**Support- and pointless-cylindrical Grinding Machines** (cylindrical and conical material)
carbon steel, rust- and acid resistant steels	WPE 421 WPE 621 ALX 631 CLX 631 ZLY 681 ZLX 681 ALY 741 ALX 681/682 ALX 931 ALX 933 CLX 931 CLX 808 ZLY 782 CLY 931	WPE 421 APF 431	ALX 461 ALX 631 ALX 681/682 ZLY 681 ZLX 681 ALY 741 ZLY 782 ALX 931 ALX 933 CLX 808 CLX 931 ALY 933 CLY 931	ALX 461 ALX 631 ALX 681/682 ZLY 681 ALY 741 ZLY 782 ALX 610 ALX 931 ALX 933 CLX 808 ZLX 681 ALY 933 CLX 931 CLY 931
FE-Cast-materials		WPE 421 APF 431	ALX 631 ALX 461 ALY 741 ZLY 681 ZLX 681 ALX 610	ALX 631 ZLX 681 ZLY 681
aluminium, magnesium and their alloy	CPE 271 WPE 421 CLX 931	CPE 271 APF 431 WPE 421	ALX 610 ALX 631 ZLY 681 ALJ 461 CLX 808 ZLX 681 ALY 741	ALX 461 ZLX 681 ZLY 681 ALX 610 ALY 741 CLW 711
plumb, zinc, tin, copper and their alloy; like bronze, brass, gunmetal	ALY 741 ALX 610 CLY 931	APF 431 WPE 421	ALX 610 ALX 461 ALX 631 CLX 931 ALJ 461 CLY 931	ALX 461 CLW 711 ZLX 681
titan, zirconium and their alloy	CLX 631 ZLY 681 ZLY 782 CLX 931		ALY 741 CLX 631 ZLY 681 ALX 681/682 CLX 931	ALX 681/682 CLX 931 CLX 808 CLW 711
hard welding materials, hardened steels, Stellite			ALX 681/682 CLX 931 CLW 711	

	Abrasive Band Grinding Machine for manual handling (Profile, punching, cast parts, forging)	**Pendulum Grinding Machine** (plates, large area moulded pulps, moulded pulps for a large area, seals)	**Angle Grinder** (usage of discs)	**Manual Grinding**
carbon steel, rust- and acid resistant steels	ALJ 461 ALX 461 ALF 631 ALF 632 ALX 631 ALX 681/682 ZLY 681 ZLX 681 ALY 741 ALW 782 ZLY 781 ZLY 782	ALX 610 ALX 631/461 ALX 681/682 ZLY 681 ZLX 681 ALY 741 ZLY 782	AFA 631 AFA 681 AFS 631 ZFA 681 AFN 631 AFS 681	ALL 632 ALF 231 ALJ 231 CPA 871 CPC 871 ALJ 508 OLJ 508 APC 231
FE-Cast-materials	ALX 610 ALF 631 ALX 631 ALF 632 ALY 741 CLX 631 ZLY 681 ZLX 681 ALW 782 CLW 711 CLY 931	ALX 610 ALX 631 ALY 741 ZLY 681 ZLX 681	AFA 631 ZFA 681 AFS 631 AFN 631	ALL 632 ALF 231 APC 231 ALJ 231
aluminium, magnesium and their alloy	ZLY 781 ALX 610 ALX 631 ALY 741	ZLY 681 ALX 610 ALX 461 ALX 631	AFA 631 AFA 681 AFN 631 AFS 681	ALL 632 ALF 231 APC 231 ALJ 231
plumb, zinc, tin, copper and their alloy; like bronze, brass, gunmetal	ALX 461 ALF 631 ALF 632 ALJ 461 ALY 741 ZLY 681 CLW 711 CLX 631 CLF 631		AFA 681 AFS 681 AFA 631 AFN 631 AFS 631	ALL 632 ALF 231 APC 231 ALJ 231
titan, zirconium and their alloy	ZLY 681 ZLY 782 ALF 631 ALF 632 ALX 631 ALW 782 CLW 711	ALX 681/682 ALY 741 ZLY 681 ZLX 681 ZLY 782		
hard welding materials, hardened steels, Stellite	ZLY 681 ZLY 782			

Specifications

Ordering designations	Product Description	Base	Binding	Dispersion	Grain Size
WPE 421	Resin paper, white Alo	E-weight paper	resin	closed	P 320-36
WPE 621	Resin paper E	E-weight paper	resin	closed	P 600-400, 320
APF 431	Resin paper, brown Alo	F-weight paper	resin	closed	P 40,60,80,120
APC 231	Finishing paper Alo	C-weight paper	glue	closed	P 400,320-150
CPE 271	Belt paper SiC	E-weight paper	glue	closed	P 600-100
CPC 871	Waterflex paper SiC	special paper C	waterproof	closed	P 180-120,80
CPA 871	Waterflex paper SiC	special paper A	waterproof	closed	P 1200-220
AFA 631	Fibre discs	fibre 0,8 mm	resin	closed	P 80-36,24,16
AFA 681	Fibre discs, special bond	fibre 0,8 mm	resin	closed	P 50,36
AFN 631	Fibre discs	fibre 0,7 mm	resin	closed	P 80-24
AFS 631	Fibre discs	fibre 0,6 mm	resin	closed	P 180-80
AFS 681	Fibre discs	fibre 0,6 mm	resin	closed	P 60
ZFA 681	Zirconia fibre discs	fibre 0,8 mm	resin	closed	P 80-36
ALL 632	Alo resin cloth	L-cloth	resin	closed	P 500-36
ALF 231	Alo glue cloth flex	F-cloth flexible	glue	closed	P 400-60
ALJ 231	Alo glue cloth	J-cloth	glue	closed	P 360-40
ALJ 461	Alo resin cloth	J-cloth	resin	closed	P 500-60
ALX 461	Alo resin cloth	X-cloth	resin	closed	P 400,320-36
ALJ 508	Metal polishing cloth	flexible cloth	resin	slurry coat	P 400
OLJ 508	Crocus polishing cloth	flexible cloth	resin	slurry coat	Crocus
ALX 610	Alo resin cloth	X-cloth	resin	closed	P 120-24,16
ALF 631	Alo resin cloth flexible	F-cloth flexible	resin	closed	P 400-80
ALF 632	Alo resin cloth flexible	light jeans flexible	resin	closed	P 500-36
ALX 631	Alo resin cloth	X-cloth	resin	closed	P 240-36,24
ALW 782	Alo resin cloth	X-cloth flexible	resin	closed	P 240-60
ALY 741	Heavy duty resin cloth	polyester	resin	closed	P 220-36,24
ALX 681/682	Alo resin cloth, special bond	X-cloth	resin	closed	P 220,180,120, 80,60,40
CLF 631	SiC resin cloth flexible	F-cloth flexible	resin	closed	P 400,320-80
ALX 931	Alo resin cloth, waterproof	X-cloth	waterproof	closed	P 400,320,240-40
ALX 933	Alo resin cloth, spherical grain	X-cloth	waterproof	closed	P 400,320,240, 180,120,80
ALY 933	Alo resin cloth, spherical grain	polyester	waterproof	closed	P 60
CLX 931	SiC waterproof cloth	X-cloth	waterproof	closed	P 400,320-60,40
CLY 931	SiC waterproof cloth	polyester	resin	closed	P 120-60
CLW 711	SiC resin cloth X-Flex	X-cloth flexible	resin	closed	P 320,220-60
CLX 808	Flexbac Superfinishing-SiC	X-cloth	resin	closed	P 800,600,400, 220

ZLY 681	Zirconia resin cloth	polyester	resin	closed	P 80-36,24
ZLX 681	Zirconia resin cloth	X-cloth	resin	closed	P 120-36
ZLY 781	Zirconia resin cloth	polyester	resin	semi-open	P 36
ZLY 782	Zirconia resin cloth	polyester	resin	closed	P 120-36,24

CARBOFIX

The CARBORUNDUM Velcro System **CARBOFIX** can be used on any eccentric, angle and orbital sander available in the market. The sanding process with this system is very clean, economic and safe. As a result of Velcro fastening a clamping or glueing with a clamping nut or clip is no longer required. Down-times are reduced to a minimum. No glue residues on the support plate. Dust extraction holes will reduce considerably the amount of dust. This will inevitably lead to an improved surface finish.

Products and fields of Application:

ALX 631: Aluminium Oxide, X-weight cloth, resin over resin, grit 24, 36
Roughening in the automotive industry, mechanical engineering, metal, industry and garages to grind welding seams, frames, burrs, etc.

WPE 421: white Aluminium Oxide, E-weight paper, resin over glue, grit 40 to 220
Intermediate and finish sanding in the automotive, metal furniture and plastic industry, in mechanical engineering and garages, moreover for finishing of welded and brazed seams, metal and plastic surfaces, windows, doors and furniture components.

APA 280: Aluminium Oxide, A-weight paper, glue, grit 100 to 180, 240, 320, 400
Finishing in the automotive, metal and plastic industry, in mechanical engineering and garages grind varnished and painted surfaces, metal, wooden and plastic surfaces.

ANO 808: Aluminium Oxide, non-woven, resin over resin, nylon non-woven filled with abrasive grain to sand paint, varnish, wood, metal; finishing in the automotive industry.

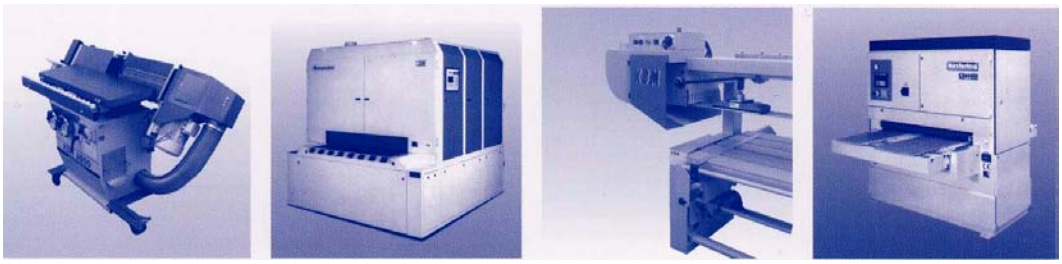
Available as:
Discs: 115, 125, 150 and 180 mm diameter, plain or with holes
Sheets: 80 x 133, 93 x 178, 115 x 228 mm, plain or with holes
Special dimensions on request!

Accessories:
Support plates 113, 123, 147 and 172 mm diameter, M 14 screw thread, Velcro coat LX 500

Machines:
AEG, Bosch, Fein, Festo, Loeser

Machine system:
Eccentric, orbital and oscillating sanders with and without dust extraction holes.

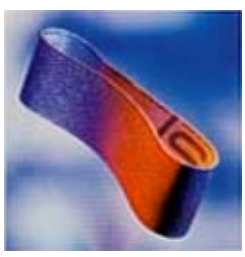
Coated abrasives for the Treatment of Wood

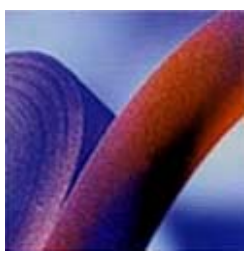


Due to our experiences gained in more than 100 years we offer first-class products for all grinding tasks. In the following descriptions we give you important advice about high-quality abrasives that are experienced in practice for economic processing of wood and varnish.

In consequence of natural discrepancy in the characteristics of woods we offer you the assistance of our application engineers when choosing the right abrasive for your special field of application. The „Carborundum Schleifmittelwerke GmbH“ are your technically competent partner for your individual ‘grinding problems’.



Recommendations for Abrasives

	Abrasive Band Grinding Machine	**Long-band Grinding Machine**	**Vibration-Grinder, Exenter-Grinder**	**Manual Grinding**	**Edge Grinding Machine**	**Air drums** and **Profile Grinding Machine**	**Manual Grinding**
MDF-Chipboard and hardboard, hardwood - veneer	CKE 411 CLZ 611 CKS 611 CPG 611 CLY 611	CKE 411 CLY 611	WPC 411 WPE 421 CPE 411 (Carbofix)			CLW 711 CLF 631	
glued massive-slab	ALX 610 CLX 611 ALZ 610 AKS 610 CKS 611 ZLZ 610						
Plywood	WPE 421 ALX 610 AKS 610 APE 410 ALZ 610 CLZ 611 CKS 611 CLY 611	APE 410 WPE 421 CKE 411 ALX 461	WPC 411 (Carbofix) WPE 421 WPE 421 (Carbofix)				
hardwood-veneer and hardwood	WPE 421 APE 410 APF 420	WPE 421 APE 410 ALX 461	APB 220 APC 220 WPC 411 WPE 421 WPE 421 (Carbofix)	ALX 461	WPE 421 CKE 411 ALX 461 ALX 610 APE 410	ALJ 461 ALF 631 ALF 632 CLW 711	APB 220 APC 220 ALL 632
softwood-veneer	APE 410 WPE 421 APF 420	APE 410 WPE 421 ALX 461	APB 220 APC 220 WPC 411 (Carbofix) WPE 421 WPE 421 (Carbofix)	ALX 461	APE 410 ALX 610 ALX 461	ALJ 461 ALF 631 ALF 632	APB 220 APC 220 ALL 632
woods including resin and veneers	APE 410 APF 420	APE 410	APB 220 APC 220 WPC 411 (Carbofix) WPE 421 WPE 421 (Carbofix)	ALX 461	APE 410 APF 420 ALX 610 ALX 461	ALF 631 ALF 632	APB 220 APC 220
resin varnish	CPE 680 APE 680 CPE 271 CPD 280 CPE 411	CPE 680 APE 680 CPE 271 CPE 411	CPB 270 APB 280 APC 380 (Carbofix)			ALF 631 ALF 632 CLF 671 CLF 631	CPB 270 APB 280 APC 380

Closures
for ideal bonds

The different medium (like combination, cloth, paper) are locked with different closures to grinding belts. The separating edges and crosscut edges respectively are directly cut for all products, except from the closures VS 14/15.

VS 11 is the splice for coarse grit combination product **CKS 611, P 50-36**. The splicing tape is let into the backing so that there is no increase in product thickness in the area of the joint.

VS 10 is the splice for the fine grit combination product **CKS 611, P 180-60**. On the grain side of this product the coating is removed oppos the splice tape. By removing the coating the whole splice area becomes r flexible thus enabling chatter free sanding. The grain-bond film is well-wo this closure – breadth 10 mm – in other respects this closure is identical with VS 11.

VS 17 is a shock closure for normal and broadbands from **CLZ 611** and **CLY 611** as well as other products on heavy cloths-medium.

VS 18 is the alternative splice for polyester belts **CLZ 611** and **CLY 611**, where the belts are running over a graphite pad. This splice is r by removing the grain and bond from the face of the belt to the width of th tape. The tape is then bonded to the face of the backing. The tape is muc thinner than the grain and bond that has been removed so it does not tou work piece during the sanding operation. Only the smooth polyester back is in contact with the sanding pad thus increasing pad life.

VL 01 is the lap splice for all applications with normal and broad bands. This is the standard for most paper woodworking single splice belts. The splice is produced by sanding highly accurate opposing papers on the ends of the belt. When the ends are joined together the belt thickness is constant throughout its entire length, producing a smooth and chatter free running belt.

VL 03 / 06 is a lapped closure for profile- and edge grinding cuts. The des is like VL 01, but concerning the grains, there is a grain-free zone betwee 10 mm and 6 mm respectively.

VS 12 is a shock closure for normal- and broad bands with cloth-base made from cotton and polyester. The foil is bonded from the back in the middle of the cloth.

VS 14 / 15 is the shock closure with mandrel cut for normal bands on a c
base. The foil is bonded from the back.

Tips for any event

The surface

Wood is very effective due to its noble surface. But even the most beautiful wood grain stays unhandsome if it is not exerted by the according surface finish. The multiplicity of different kinds of woods is, in consequence of the steadily growing offer of Non-European woods, making the predefinition of the best-suitable coated abrasive for the respective application extremely difficult. Good knowledge of the characteristics of several kinds of woods, the special degree of hardness (soft to hard) and the great number of the utilised grinding machines, are nowadays a basic pre-condition for the choice of the best-suitable abrasive.

The basic compounds of the particular abrasive as well as the use of graining and the results of the graining play a big role. As a result honed surfaces appear lighter and coarse-grounded surfaces appear darker, when using the same stain. The choice of the ideal grain size depends on the following factors:

- quality of the original surface (Quality of the veneer)
- kind of wood, veneer – massive wood
- work piece, size of the work piece (furniture, panel, doors)
- type of grinding machine (roll, print bar) grade of the print bar
- feed
- grinding speed
- existing remnants of glue
- desired surface finish and lightness

Also the choice of the kind of binding of the abrasive is very important in connection with the used grinding machine and type of wood. Abrasives which are bonded with glue are grinding e.g. finer as ones which are bonded with resin when using the same grain size. We particularly point out that when using wood it is not always possible to exactly define the material which is used compared to the use of metal cut.

Different locations and growth can result in discrepancies of the characteristics even if it is the same type of wood. Therefore, if making statements about the lifetime of abrasive belts you should do this only in authentic relation to the particular characteristics of the wood that has to be processed. As e.g. an oak is not the same as an oak. Also the glue which leaks from the veneer-joint or the edge band when cutting veneer is important, as it can result in an untimely decomposition of the abrasive belt. This can be very uneconomically, especially when using broad bands. An upstream cross-abrasive belt machine (e.g. cross-cut) and an open dispersion of the abrasives can produce relief.

The timber industry has a lot of different types of machines from different manufacturers for the treatment of wood. To meet the increased expectations especially from the furniture industry, many manufacturers now offer their grinding machines in a unit assembly system. Therefore they can meet the special requirements for the treatment of surfaces of different types of woods and the demanded surface finish.

Choosing the best-suitable Abrasive

The choice of the best suitable abrasive is a compulsory precondition for the appearance and quality of the final product as well as the maintenance of competitiveness. The above mentioned criterions show how important the steady contact between application engineers of the customers and the Carborundum abrasive engineers is. The producer of machines for wood machining and the abrasive industry developed methods and products which enable the consumer to achieve high efficiency and profitability.

The “Carborundum Schleifmittelwerke GmbH” offers a wide range of coated abrasives (on the base of paper, cloth or combination) for all grinding- and polishing operations in the wood processing industry. These are available in all required delivering forms like: bends, facings, strips, rolls, belts, broad bands, cones, drums and discs. The bond systems are based on glue- and resin bonds and have been developed by the use of the latest methods. Carborundum-Coated abrasives are, depending on their field of application, in all standardised grain sizes (by the FEPA) electrostatically strewn with corundum, white corundum or silica carbide

The „Carborundum Schleifmittelwerke GmbH“ places first-class coated abrasives at the customers disposal. Furthermore the customer gets technical service for his field of application for free combined with world-wide experiences, gained in decades, in research & development, production and grinding-technical application. Everything is always at the latest technical level. Consultation, combined with grinding experiments, will surely convince you to decide for abrasives from the „Carborundum Schleifmittelwerke GmbH“ who are the pioneers of grinding techniques.

Belt Speeds

We recommend to put the grinding speed down when using the following kinds of woods: hard and medium-hard wood 22 25 m/s and resinous and extremely soft woods, e.g. when using pine, spruce, teak on a speed of 11 – 15 m/s.

Accessories

Long life and power of coated abrasives can be influenced positively by using the best suitable grinding accessories. There are for example graphite- and slide-coatings available for the timber industry.

Storage

Grinding tools should be handled carefully during transportation. Avoid mechanical damages for example when flinging, kicking or cracking. Please note that you have to store grinding tools only in dry and frost-free rooms and avoid storage near the heating or cold and damp walls, doors or windows as well as storage directly on the floor.

We recommend temperatures between 18°C and 22°C and relative humidity of air between 25% and 65% for optimal storage. Protect grinding tools of direct insolation. Try to keep the grinding tools in their original package before usage. In case you take them out of their package store them safely so that deformations can be avoided.

Results of wrong storing

Wrong storing can result in enormous loss of efficiency. Coated abrasives are very responsive to strong fluctuations of the humidity of air, but note that if the storage is too dry it is also extremely harmful.

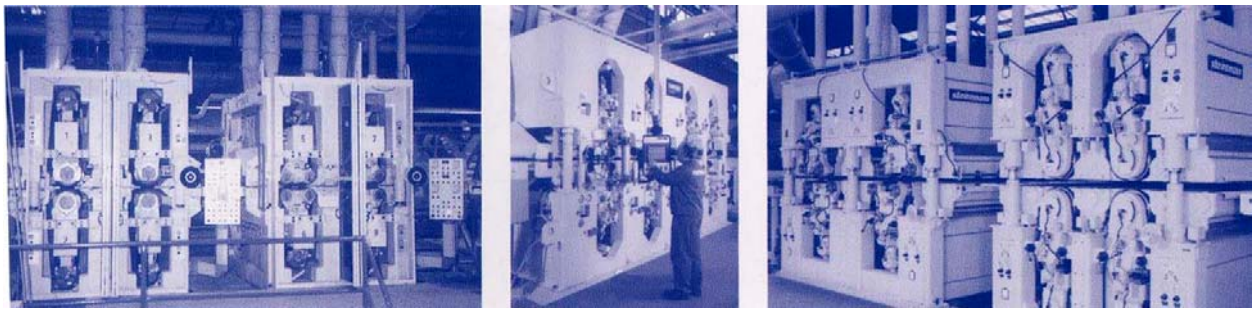
Guidelines for the handling of abrasive belts

The „FEPA-Security Recommendations for the right use of *Coated abrasives*“ contain further advice for the right use of the tools. Please ask for the recommendations and the „Carborundum Schleifmittelwerke GmbH“will place them at your disposal for free.

Product Portfolio

Product Code.	Product Description	Backing	Bond	Coating	Grit
APB 220	Finishing paper Alo	B-weight paper	glue	open	P 320-150
APC 220	Finishing paper Alo	C-weight paper	glue	open	P 120-60
WPC 411	Resin paper, white Alo	C-weight paper	resin	semi open	P 320,240-40
APE 410	Resin paper	E-weight paper	resin	semi open	P 320-36
WPE 421	Resin paper, white Alo	E-weight paper	resin	closed	P 320-36
APF 420	Resin paper antistatic	F-weight paper	resin	open	P 320-60
CPE 271	Belt paper SiC	E-weight paper	glue	closed	P 600-150
CPE 411	Resin paper SiC	E-weight paper	resin	closed	P 120-36,24
APB 280	Stearate finishing paper Alo	B-weight paper	resin	open	P 400,320,240-100
APC 380	Stearate finishing paper Alo	C-weight paper	resin	semi open	P 600-60,40
CKS 411	Combination SiC	sateen-combination	resin	semi open	P 120-30
CKS 611	Combination SiC	sateen-combination	resin	closed	P 180-36
AKS 610	Combination Alo	sateen-combination	resin	open	P 60
ALZ 610	Alo resin cloth, S	polyester	resin	open	P 60
ALF 631	Alo resin cloth flexible	F-cloth flexible	resin	closed	P 400-80
ALF 632	Alo resin cloth flexible	light jeans flexible	resin	closed	P 500-60
ALL 632	Alo resin cloth	L-cloth	resin	closed	P 500-36
ALJ 461	Alo resin cloth	J-cloth	resin	closed	P 500-60
ALX 461	Alo resin cloth	X-cloth	resin	closed	P 400-36
ALX 610	Alo resin cloth	X-cloth	resin	open	P 150-24,16
CLX 611	SiC resin cloth	polyester	resin	closed	P 150-36,24
CLY 611	SiC resin cloth	polyester	resin	closed	P 180-40
CLW 711	SiC resin cloth X-Flex	X-cloth flexible	resin	closed	P 320,280,220-60
CLF 631	SiC resin cloth flexible	F-cloth flexible	resin	closed	P 400,320-80
CLF 671	SiC resin cloth flexible lubricated	F-cloth flexible	resin	closed	P 800,600,400,320
CPG 611	Belt paper SiC	G-weight paper	resin	closed	P 180-80
CPD 280	Stearate belt paper SiC	D-weight paper	glue	semi open	P 400,320,280
CPE 680	Stearate belt paper SiC	E-weight paper	resin	semi open	P 600-400
APE 680	Resin paper Alo, Stearate	E-weight paper	resin	semi open	P 320

Coated Abrasives for Sanding Chipboard and MDF Boards



Carborundum Abrasives has been at the forefront of the Abrasives Industry for more than a century. The company discovered Silicon Carbide, the first synthetic abrasive product in the world. It was and still remains the cornerstone of all our specialist MDF and chipboard products.

The Carborundum Abrasives product portfolio for the board industry is based around wide belts manufactured in the following products**, CKS 611** with a combination backing, **CPG 611** with a heavy duty paper backing as well as **CLZ 611** and **CLY 611** both using polyester cloth backings. These products provide high performance ratios combined with excellent life expectancy which is demanded by the board industry

The backings, bond systems and abrasives of our products **CKS 611** and **CLZ 611** have been designed to be suitable for universal use in calibrating stations (by contact roller), combined intermediate stations (by contact roller and shoe) and finishing stations (shoe only) on both chipboards and MDF boards.

Abrasive Belts for Different Applications

The backing of **CKS 611** is a lamination of sateen cloth and „E“ weight paper affording high strength and excellent distribution of the forces generated during belt oscillation. For CKS 611 the belt splicing tape is recessed into the backing thus substantially reducing wear on the graphite pressure pad compared to the slightly rougher cloth backings.

CLZ 611 is made on a high tear resistant polyester cloth backing. The print side is specially treated to minimise wear on the graphite pressure pad. In addition, this product has been engineered to be extremely stable while running and is easy to handle. The characteristics of the product ensure a high degree of resistance to temperature and humidity changes.

The backing of **CLY 611** is made from polyester cloth which is designed for single segment belts with a maximum width of 1400 mm (55“). The belts are suitable for use on calibrating, intermediate and finishing heads and all narrow belt applications including cross-sanding. CLY 611 belts are resistant to changes in humidity and can be washed and re-used in order to extend their useful life.

CPG 611 has been designed to provide optimum performance on the finishing station of MDF sanding machines and can be used on either shoe or combination heads.
The backing of CPG 611 is „G“ weight paper which can be supplied in segmental belt form. The splice used for segmental belts is the standard VL 01 lap splice, which is identical to the one used for belts supplied to the furniture industry where equally high standards of finish are required. CPG 611 belts should be handled with care, particularly during unpacking, storing and loading onto the machine. It is recommended that a mounting trolley is used to assist in the loading operation in order to prevent damage occurring to the belt edges.

Sanding Recommendations

	Calibration	Intermediate	Finishing
Sanding speed. (m/s)	27 – 38	22 – 27	22 – 27
Power (kW)	- 160	90 – 132	75 – 90
Stock removal	75 – 85%	Rest	0,03 – 0,06 mm
Grit sequence chipboard	P24 – 60	P40 – 80	P80 – 100, rarely finer
Grit sequence MDF/HDF	P40 - 100	P80 - 120	P100 – 180, rarely finer

- Belt oscillation at all stations of approximately 15-20/min, oscillation 10-20 mm (0.4“-0.8“)
- Infeed varies between 15-65 m/min
- Sander should be thoroughly cleaned before new belts are mounted
- Sanding shoes should be checked and repaired or replaced before new belts are mounted

Product Portfolio

	P 24	P 36	P 40	P 50	P 60	P 80	P100	P120	P150	P180
CKS 611 Silicon carbide abrasive grain on a combination (paper/sateen) backing with a resin over resin bond which provides a high performance abrasive belt for good stock removal and excellent surface finish. Available in belts up to a maximum width of 4,000mm (157.5”)		X	X	X	X	X	X	X	X	X
CLZ 611 Silicon carbide abrasive grain on a polyester cloth backing with a resin over resin bond. The polyester backing gives an outstandingly smooth running belt which is easily handled and able to cope with low and high infeed rates. As the product is impervious to water it can be washed to extend life. Available in belts up to a maximum width of 4,000 mm (157.5”)	X	X	X	X	X	X	X	X	X	
CLY 611 Silicon carbide abrasive grain on a polyester cloth backing with a resin over resin bond. This product is made for single splice belts only, but can be used on all operations – calibrating, intermediate and finishing, using either low or high infeed rates, and for cross sanding operations. As with other polyester products it is easy to handle and can be washed and re-used. Available in belts up to a maximum width of 1,400 mm (55”)			X	X	X	X	X	X	X	X

CPG 611 Silicon carbide abrasive grain on a “G” weight paper backing with a resin over resin bond. This product is designed for making multi-splice belts used on all finishing stations. The belts are capable of generating an extremely high surface finish particularly when used in conjunction with a shoe. Available in belts up to a maximum width of 4,000 mm (157.5”)						X	X	X	X	X