



Innovative Solutions for Surface Finishing

Abrasive tools

Polishing tools

Polishing compounds



Organizations throughout the world trust and depend on the quality and efficiency of OSBORN-Unipol solutions. In 11 locations worldwide we are manufacturing brushes, abrasives, polishing tools and compounds of the highest quality for professional use in the industrial, trade and private sectors. OSBORN-Unipol products are sold in more than 90 countries to industry, engineers, wholesalers, retailers and end users in highly diverse markets. The

breadth of applications for our products is extensive in fields such as aerospace, automotive, food processing, primary metals, oil and gas, textile, wood processing and transportation industries etc. to name but a few. Our group manufactures over 10,000 standard products in addition to the widest variety of engineered custom solutions for customers around the world. Whether in Western or Eastern Europe, North America, South America, Middle East or



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* Centers of excellence for polishing tools!

Asia, every company within our group, together with our network of field sales representatives, technicians, agencies and distributors throughout the world, offers high-quality technical products to the market as well as up-to-date solutions to industry problems. Our philosophy is to leverage the technical competence and advantages of our specialized production sites while at the same time being accessible to serve all local customers with the appropriate

solutions delivered on time and with the necessary local support. We offer all the advantages and strengths of a large multinational enterprise together with those of a smaller business with quick reactions, close to customers and highly responsive. We are determined to provide ongoing satisfaction, and we work towards this goal with commitment and enthusiasm. Building upon past success we look forward to fresh challenges ahead.





Stitched mops and LM buffs

To be used in robotic machines or machines with large tool dimensions. Applications: sanitary fittings, and car parts processing and finishing of uneven surfaces. The construction in CB, a material with abrasive qualities equal to sisal, prevents the possibility of scratches. We recommend Notiflex for finishing. Available in several thicknesses (number of layers and seams).

Dimensions	Ext. Ø from 700 to 1.000 mm Bore Ø from 30 to 60 mm
Material	101A, 101ATT, 215, 290, 293, 308, CB, 264J, M05, Notiflex®



Folded buffs cloth L

Bufs are used for polishing and finishing particularly complex pieces. These buffs combine a cool air effect with a great abrasive capacity. The homogeneous folded system is a guarantee for good results, very high retention of compound; also allows for work on a wide surface and provides the buff with a long service life.

Impregnation	8S
Dimensions	Ext. Ø from 150 to 1.000 mm Bore Ø from 20 to 230 mm circular and 19, 24 and 32 hexagonal
Material	101A, 101ATT, 215, 290, 293, 308, 304A, CB, 264J, M05, Notiflex®



Coolair EK, EKK and ER buffs

With a metallic clinch ring (EK), internal steel ring in the core (ER) or metallic core. These buffs are manufactured with slightly irregular folds. This is our standard low cost buff for nearly all polishing and finishing applications. They can be used on shafts with different lengths by mounting several buffs together.



Impregnation	8S
Dimensions	Ext. Ø from 60 to 1.000 mm Bore Ø EK: 55, 60, 76, 80, 100, 110, 127, 130, 150, 178, 200 and 230 mm, circular Bore Ø EKK: 20, 25 mm circular and 12, 19, 24 and 32 hexagonal
Material	101A, 101ATT, 215, 290, 293, 308, 304A, CB, 264J, M05, Notiflex®



WR-EK and ER buffs

Due to the regular waves, these buffs have a long service life, a high polishing action and a cool air effect. Buffs are manufactured with a metallic clinch or metallic ring as core. Applications: hollowware and flat parts, pots and pans finishing with compound; stainless steel sink processing, polishing of profiled parts because of high flexibility, removing dust after sanding wood. The high flexibility avoids overheating the working surface - the base for a perfect finish.

Impregnation	8S
Dimensions	Ext. Ø from 200 to 600 mm Bore Ø from 55 to 230 mm Bore Ø with flange from 20 to 100 mm
Material	101A, 101ATT, 215, 290, 293, 308, 304A, CB, 264J, M05, Notiflex®



Tampico fibre brushes (cup and round brushes)

These brushes can be produced as punched, spiral and compresses brush. Applications: standard tool for matt finishing with compound; stainless steel sink processing, polishing of profiled parts because of high flexibility, removing dust after sanding wood. The high flexibility avoids the overheating of the working surface which is the base for a perfect finish.



Impregnations	8S, K5	
Dimensions	Round:	Ext. Ø from 30 to 500 mm
	Cup:	Ext. Ø from 25 to 250 mm
Material	Fibre Tampico, synthetic bristle (with or without grit), wire fine (steel, brass, stainless steel) and horsehair.	



Sisal cloth maxi discs and LM buffs

Used in robotic machines (1.000 mm) and machines of large tool dimensions. They can be manufactured with different combinations of sisal and cotton cloth. Available with stitching in all seam combinations according to the required stiffness of the tool. They allow a high speed cut and retention of the compound. Applications: Strong and aggressive polishing; sanitary fitting processing, builder hardware, round parts polishing.

Dimensions	Ext. Ø from 700 to 1.000 mm Bore Ø from 30 to 60 mm	
Material	JB/101B, 81/101B, JB/301J, 81/301J	



SI-SP stiched sisal buffs

Manufactured with different types of sisal, extremely compact, available with metallic clinch ring as core. They can be impregnated in order to be more effective and to achieve better results. Applications: Strong and aggressive polishing, where flexibility is not required. Centerless processing of tubes, external polishing of pots and pans.

Impregnations	H5, H5A, H2I, H6, VI4	
Dimensions	Ext. Ø from 200 to 600 mm Bore Ø EK: 55, 80, 130, 150, 180 and 230 mm Other bore Ø from 20 to 70 mm circular and 19, 24 and 32 hexagonal	
Material	JB, 81, 28, 92, 222/92	



Coolair sisal and sisal cloth buffs

Buff with irregular waves and a cool air effect. Core with metallic clinch ring (EK), internal steel ring in the core (ER) or metallic core. Manufactured with different types of sisal or combinations of sisal and cotton cloth. In order to increase hardness and aggressiveness they can be impregnated. This is our standard low cost buff for nearly all cutting pans polishing applications: cutting of stainless steel, aluminium and non ferrous metals, builders hardware, car parts and household appliance manufacturing.

Impregnations	H5, H5A, H6, VI4, K5	
Dimensions	Ext. Ø from 60 to 700 mm Bore Ø EK: 55, 80, 130, 150, 180 and 230 mm Othe bore Ø : 20 and 25 mm circular and 12, 19, 24 and 32 hexagonal	
Material	JB, 81, 81/101B, JB/101B	



WR and M sisal cloth buffs

Due to their construction these buffs have a long service life, a high polishing action. In order to increase hardness and polishing action they can be impregnated. Recommended for the cutting of stainless steel and steel on automatic and round table machines, due to their high density (hardness) and the good cool air effect.



Impregnations	H5, H5A, H6, VI4, K5
Dimensions	Ext. Ø from 250 to 700 mm Bore Ø : 80, 100, 130, 150 and 180 mm Other bores available with adapters.
Material	82B/101B, 81/101B, JB/101B



EK and ER sisal cord buffs


The cord construction offers flexibility and it wraps around the part so that highly contoured items can be cut. It also ensures that the buffs are cool in operation. In order to extend their service life and abrasiveness we recommend impregnating them. For cutlery industry we offer these brushes in straight, convex or concave shape.



Impregnations	H5, H5A, H2, K5, V66
Dimensions	Ext. Ø from 60 to 500 mm Bore Ø EK: 80, 100, 130, 150 and 180 mm Other bores available with adapters.
Material	48, 32, 31

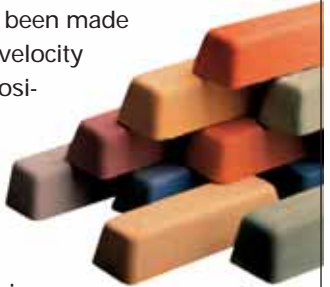
OSBORN Unipol produces a very wide range of compositions in both solid bar and liquid paste form. These top quality compositions fully compliment the diverse surface finishing tools in the OSBORN Unipol range. Several manufacturing sites allow great flexibility, complete

market coverage and also combine a vast wealth of experience both on production, development and the practical application of the compositions with trade names more than familiar to the world-wide market: Autolin- Athos- coldax- vornex- dialiux- unipol etc.



Liquid paste compositions are available to suit all applications from rough polishing to mirror finishing on all base materials from metals to plastic and wood. Considerable progress has been made in the field of liquid compositions and the spray system: for low pressure, high velocity spray guns and the airless spray systems requiring special high viscosity compositions. Compositions are available to suit the individual spray system from 25 kg bubs through 250 kg drums to refillable plastic containers. Engineers are available to advise and assist in finding the best composition for a given application.

Solid bar compositions are available for both manual polishing and automatic feed applications. The compositions cover the entire surface finishing process from rough polishing to mirror finishing.







Non-woven coolair EK and EKK Lipprite® buffs

With metallic clinch ring (EK) or metallic core (EKK). Best results are obtained with minimum buff pressure and this ensures the long life of the buff. Applications: all satinising operations, on both manual and automatic machines. Also available for polishing on robotic machines (600 mm diameter).

Dimensions	Ext. Ø from 80 to 600 mm Bore Ø from 20 to 230 mm circular and 19 to 32 mm hexagonal Available in aluminium oxide and silicon carbide in all grit sizes.
Impregnations	PH 90, PH 210



Coolair WR-ER and WR-EK Lipprite® buffs

With a metallic clinch ring (EK) or additional card board core. Due to the high density of non woven material, these buffs are less flexible and guarantee strong cut and uniformity on the finished surface. Applications: all satinising operations, for manual work, on automatic and robotic machines up to 600 mm diameter.

Dimensions	Ext. Ø from 300 to 600 mm Bore Ø from 20 to 230 mm circular and 19 to 32 mm hexagonal Available in aluminium oxide and silicon carbide in all grit sizes.
Impregnations	PH 90, PH 210



Wheels and flap rollers with non woven material Lipprite®

Non-woven flaps arranged radially around a core. The hardness is based on using different numbers of flaps. If more hardness is required, wheels or rollers can be impregnated. Non-woven materials are available in aluminium oxide or silicon carbide and several grit sizes. Applications: for all satinising operations on flat surfaces, light grinding or deburring work, and cleaning. In PCB industry this rollers are used for deoxidising or deburring. Long rollers can be dynamically balanced.

Dimensions	Ext. Ø : 100, 110, 125, 150, 165, 200, 250, 300, 350, 400 and 450 mm Bore Ø: 6, 25, 50, 54, 76.2 (3"), 115, 127 (5"), 150, 200 and 250 mm Width: wheel from 5 to 100 mm and roller from 110 to 2.200 mm Density: 103,105,107 (standard), 109, 110 Available in aluminium oxide and silicon carbide in all grit sizes.
Impregnations	PH 90, PH 210



Lipprite® Flap wheel with shaft

Non-woven flaps arranged around a core. The construction permits using both the circumference and the face of the tool. Ideal for internal applications like finishing the inside of cups, containers, pots and pans. To be used on hand guided, robotic and tool machines.

Dimensions	Shaft Ø 3, 6 and 8 mm Ext. Ø from 40 to 100 mm Width from 20 to 50 mm Grit coarse (80), medium (150) and fine (240)
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Non-woven abrasive discs and rolls

According to the order we can send round discs with or without bore and loose rolls of material cut to the width required. For several applications.



Flap side brush with woven and coated abrasive material

Non woven and coated abrasive material flaps arranged radially around a core. To be used in low cut work, on steel and bronze articles and metallic alloys. Available in all kind of grits.



Flap wheel of non woven coated abraivse material with shaft

Compared to Lipprite® flap side brushes these tools are more aggressive since coated abrasive material is added. For inside finishing and light grinding operations.

Dimensions

Shaft Ø 3, 6 and 8 mm
Ext. Ø from 40 to 100 mm
Width from 20 to 50 mm
Grit coarse (80), medium (150) and fine (240)



Coated abrasive flap wheels SKL

Recommended for grinding of formed parts, the surface achieved is suitable as a finish or as preparation for polishing. If required the flaps can be slit. Applications: grinding steel tubes for the furniture industry, grinding pans and pots before polishing.

Dimensions

Ext. Ø from 100 to 600 mm - Bore Ø from 24 to 250 mm
Width: 25, 30, 40, 50, 75, 100 - others on request
Grits available: 36, 40, 60, 80, 100, 120, 150, 180, 220, 240, 280, 320 and 400

Material

Aluminium oxide, silicium carbide and zirconium oxide



Flap wheel of coated abrasive material with shaft

Tool for inside processing with the highest aggressiveness. Allows high speed cutting.

Dimensions

Shaft Ø 3, 6 and 8 mm
Ext. Ø from 10 to 100 mm
Width from 5 to 50 mm
Grits available: 36, 40, 50, 60, 80, 100, 120, 150, 180, 240 and 320

Material

Aluminium oxide, silicium carbide and zirconium oxide

Wheels and roller of non woven material Liprox®



Non woven abrasive wound around a core and polymer bonded. Available in a wide range of non woven materials, different grit sizes and hardness. Applications: light deburring, light grinding, finishing of metallic surfaces, grinding of profile wood. Specially recommended for deburring in PCB industry.

Medidas

Ext. Ø : 100, 110, 125, 150, 200, 250, 300, 350, 400, 450 and 500 mm

Bore Ø: 25, 35, 50, 54, 76.2 (3"), 90, 100, 127 (5"), 140, 150, 200, 240, 250, 10", 12"

Width from 10 to 770 mm

Available in aluminium oxide and silicon carbide in all grit sizes.

Density: H5, H6, H7, H8

Type: 'C1' - soft, porous bonding

'C5' - very hard, dense bonding

'C2' - medium hard

'W1' - low density, medium hard

'C3' - hard

'W3' - low density, very hard

Cylindrical brushes and rollers



Available in different constructions:

Spiral rollers are produced in welded, loose or glued on HP tube. They can be manufactured in the following materials: abrasive nylon, polyamide, wire and tampico fibre.

Applications: light deburring, satinising, dusting after wood grinding.

Punched brushes are manufactured on wooden or plastic core and tubes.

Same materials as above. The brushes can be produced in lower density than spiral rollers.

Compressed brushes are produced on steel tube. Tampico fibre and sisal cord are the most used materials. The main application is satinising stainless steel sinks.



Materials

For our high quality products we only use specially selected fill materials. Constant laboratory tests assure a high quality.

Our technical sales team will be pleased to advise you on the ideal material for your particular application.

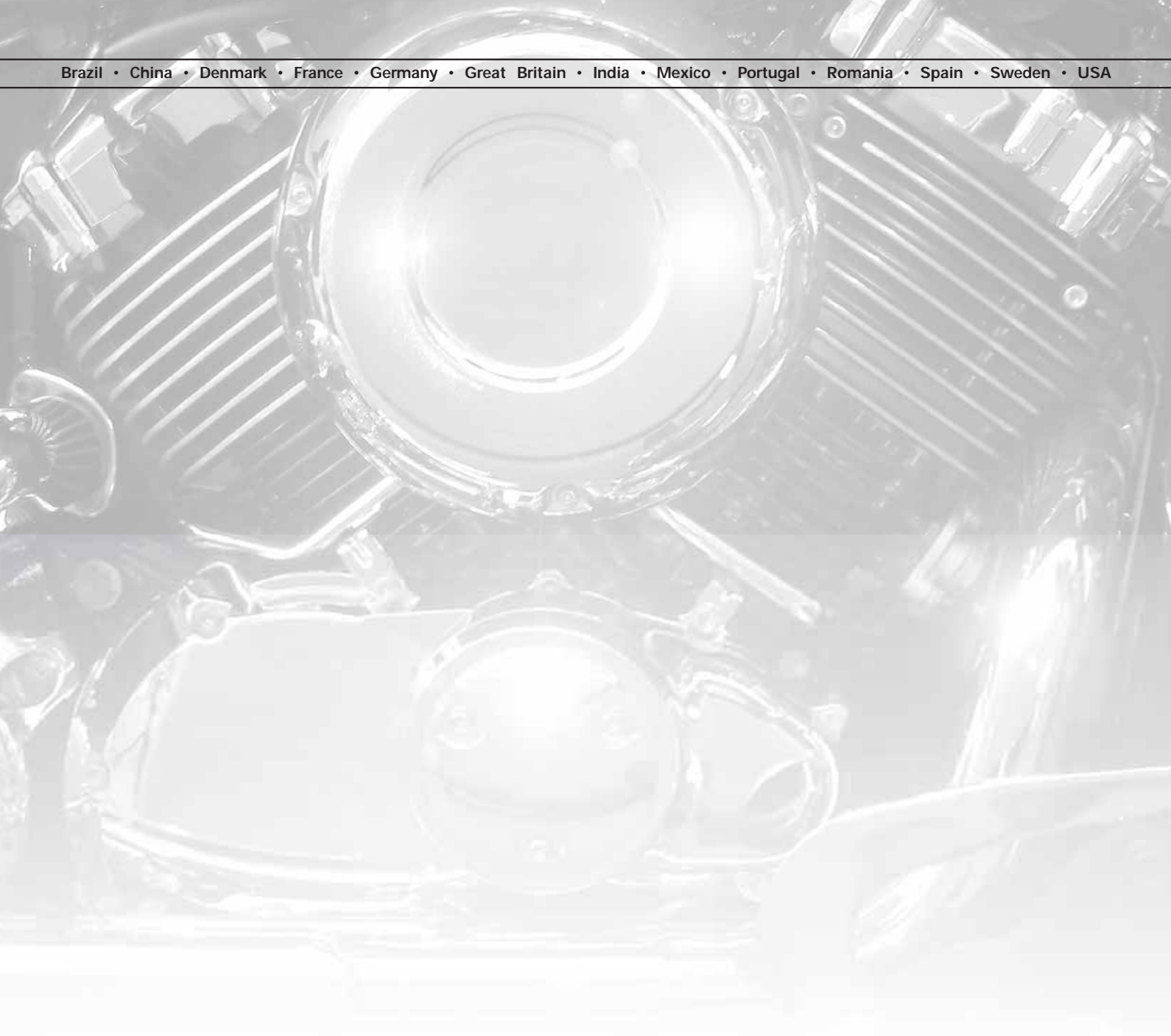
Cloth	101A	Soft, normal quality	high gloss finishing
	101ATT	Hard, high standard	polishing
	215	Medium hard, normal quality, impregnated (8S)	polishing
	290	Medium hard, high wrp and weft count	pre-polishing / polishing
	293	Hard, high warp and weft count	pre-polishing / polishing
	308	Hard, high warp and weft count, special cloth	polishing
	304A	Very hard, mill treated cloth, natural colour, high warp and weft count	polishing
	264J	Hard mill treated, heavy cloth, yellow	polishing
	CB	Hard mill treated cloth with mixed polyester and cotton threads, blue	polishing
	M05	Molton, soft, brushed on both sides	high gloss finishing
M04	Molton, soft, brushed on one side	high gloss finishing	
Notiflex®	A new generation non-woven material, specially developed for the polishing industry and only available from Lippert Unipol. Outstanding polishing results and excellent economy cannot fail to convince.		
	914	Polishing stainless steel and non-ferrous metals. Also suitable for finishing, if high gloss surfaces are not necessary. Excellent service life.	
	925	Mirror finishing and colouring of all metals and plastics.	
Sisal	28	open structure 1100 g/m ²	Natural fibre Natural tampico Nylon abrasive with SiC Nylon abrasive with Al ₂ O ₃ Nylon non abrasive, straight or crimped, white or black
	JB	stiff structure	
	81	dense structure 950 g/m ²	
	82	dense structure 1000 g/m ²	
	32, 48	sisal cord	
Malla abrasiva	Aluminium oxide (Al₂O₃)		Malla abrasiva Silicium carbide (SiC)
	A2 coarse	CRS grit 80	
	A4 medium	MED grit 100	
	A6 fine	FN grit 180 (240)	
	A7 very fine	VFN grit 280 (320)	
	A8 super fine	SFN grit 500	
		S4 medium	MED grit 100
		S6 fine	FN grit 180 (240)
		S7 very fine	VFN grit 280 (320)
		S8 super fine	SFN grit 500
		S9 ultra fine	UFN grit 600 (1000)
		S10 micro fine	MFN grit 1500

Impregnations

Lippert Unipol offers an extensive range of impregnation for sisal, tampico fibre, cloth, non woven and coated abrasive. Impregnation has developed during decades of experience and continues to be improved and extended to suit new materials

and the ever-changing needs of the market. At all Lippert Unipol facilities impregnation is constantly subjected for strict quality control procedures. All impregnation used is non-toxic, free of solvents and environmentally friendly.

Tipo H (termoplástica) - Tipo V (termoendurecida)		Oily	
H2	Green, medium hard, especially for sisal cord	8S	Honey gold, extends the aggressivity of cloth
H5	Yellow, medium hard, esp. for sisal and sisal cord	K5	Brown, very greasy. For tampico fibre and special applications
H5a	Blue, medium hard, esp. for sisal and sisal cord	For abrasives	
H6	White, hard, especially for sisal and sisal cord	PH90	Standard, medium hard
V66	Colourless, medium hard, esp. for sisal and sisal cord	PH210	Very hard, for special applications (PCB)
VI4	Green, very hard and dry, very aggressive, high density, esp. for sisal and sisal cord		



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