



Polishing Non-Ferrous Metal



Finish First with Osborn

Osborn offers the best solutions for your mechanical surface treatment challenges. Our experts are highly trained to serve you with the optimum off-the-shelf or customized tools, when and where you need them. Unlike others, we help you optimize your process, meet the highest quality and safety requirements and reduce your costs.

**130 +
years**
of experience

Local Inventories

Osborn serves 120 countries around the world. North American, European, and Asian manufacturing assures product availability and prompt delivery.

High Performance

Finest quality cloths and construction techniques for buffing solutions. Superior buff treatments for repeatability and performance.



Unique and Reputable Capabilities

Honest experts providing trusted solutions

Since 1887, we have grown to become the world's largest surface treatment and finishing provider. We're dedicated to offering the very best – a standard to which we hold ourselves and the aspiration we reserve for our diverse customer base. Osborn helps you Finish. First.

Products for every application

Osborn has the broadest selection of buffs and compounds in the industry. Osborn will develop custom solutions for particular applications when standard products cannot meet the demands.

Continued innovation

Product development focused upon customer applications. This applies to new products, continuous improvement and process control.

Leading combination

The combination of long lasting Osborn buffs and economical compounds provide excellent results and fewer rejects. Our liquid compounds are the most stable in the business due to unique methods of manufacturing. Our compounds are made using the highest quality minerals, sized within a very limited range, to ensure no unexpected lines or scratches on a given surface. They adhere perfectly to Osborn buffs for a clean and economical process. Let our experts show you how to achieve the lowest cost per part!

The Right Solution for Every Application and Every Workpiece

Non-ferrous metals form the basis of a wide range of manufactured components. They are an important part of industries from aerospace to furniture. These materials are found everywhere. Everything from sanitary fittings to builder's hardware. From fixtures, picture frames, shower units, door handles to window frames. Non-ferrous cast materials are used in musical instruments, containers, gearbox bearings and coins. These are just a small selection of products made from polished non-ferrous metals.

Luxury products and jewellery are often made from non-ferrous metals that must be polished prior to a subsequent plating process. Depending on trends and demands, the ultimate surface finish may be matt or highly polished.

Polishing Non-Ferrous Metal

Osborn polishing tools and compounds are used to refine the surface after different manufacturing processes.

The range of polishing compounds and polishing tools are specially tailored for non-ferrous metals, to ensure a finish of the highest level and absolute reproducibility.

Osborn polishing compounds and tools work hand in hand to offer consistent results over the entire length of the process. They are designed to be used on fully automated robot systems as well as in manual applications. Once a process is defined it can run 24/7 year in and year out.

Our recommended processes take into account, how top results can be achieved in the most economical way.



Finest Quality C

Mill-treated cloth manufa
Osborn specific



Consistency Eve

All cloths used by Osborn are
quality control procedures to
same quality every time (part
robotic operations run



Highest Quality

Tightest standards and controls for compound formulations providing consistency and repeatability.



Cloths

Constructed to exact
specification.



Perfect Balance

Osborn buffs are concentric and perfectly balanced for smooth operation.



Designed for All Applications

Osborn perfectly attuned buffs and compounds for all manual and automatic operations.



Every Time

subject to stringent
controls to ensure exactly the
same quality (particular important for
continuous 24/7).



Available in Multiple Sizes

Osborn buffs are available in
metric and imperial sizes.

Trusted Solutions for Polishing Non-Ferrous Metals

There is no one size fits all, Osborn prides itself on recommending the best, most efficient solution for every application. Recommendations on these pages are just examples. Our experts are happy to advise you.



Liquid Polishing Compounds

Osborn liquid compounds can be dispensed through a central system or with pressure pots. They are suitable for both high and low pressure spray guns.

Type		Characteristics	Fat	Cut	Colour
Unipol 6734	brown	All round Tripoli polishing	6	7	4
Unipol 8523	brown	Good polish and easy to clean	4	6	5
Unipol 8660	cream	Suitable for zinc die cast parts	5	6	5
Langsol P120	green	Ideal for zinc parts	6	5	6
Unipol 001	white	Top of the range colouring compound	2	3	8
Unipol 2350S	light blue	Good colouring compound on sanitary fittings	3	3	9

Solid Compounds

A full range of solid polishing compounds that can be used individually or in combination to achieve a desired result. All compounds can be supplied as sized robotic bars. For manual operations, Osborn offers approx. 1200g bags or bars.

Type		Characteristics	Fat	Cut	Colour
Langsol 2.222	Dark grey	Brushing compound very greasy	7	8	2
Unipol 6306	bordeaux	Brushing compound for windowframes	5	8	2
Unipol 2043JF	light green	Abrasive cutting compound, excellent on sisal buffs	6	6	5
Langsol 2.292	brown	Dry , abrasive, moderate colour for lead-free surfaces	3	6	5
Chrysophor 190	brown	Adheres well, abrasive but scratch-free, ideal for sanitary fittings	4	6	5
Unipol 466	white	Good cut and colour compound	4	5	6
Unipol 2046	light green	Dry, medium cut, high gloss, easy to clean	3	5	7
Langsol Edelgelb	orange	Quite greasy, medium cut and good gloss	4	4	6
Langsol 1003A	pink	Universal, top class colouring compound	2	2	8
Unipol 1305	light blue	Good colouring compound on aluminium	2	2	9

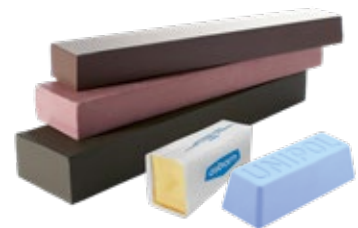
Unipol Metal Polish

- Applied manually with microfibre cloth
- Eliminates light damage from wear and tear
- Removes light oxidation
- Achieves perfect mirror finish
- Available in 125ml tubes or 1000ml tins



Osborn Gold - More than High Gloss

The Osborn Gold range is in a world of its own, far surpassing the levels of gloss achieved with other compounds:



Type		Characteristics	Fat	Cut	Colour
Osborn Gold	gold	Original gold compound for deep gloss	3	2	9
9505 Gold Fine	blue	Superfinishing non-ferrous parts	3	2	9
9495 Gold Dry	yellow	Fine polishing / colouring of gold and non-ferrous	1	3	10

Compounds for Vibratory Polishing Operations

Osborn also offers polishing medium for special vibratory polishing operations.

If you have suitable equipment available, please talk to our experts about our bestsellers:

	Type	Description	Grade
L799337401	Vibratory Polishing Medium TSM 1182 red	Used on brass/copper (sanitary fittings)	Coarse
L799316101	Vibratory Polishing Medium TSM 1164	Used on aluminium/zinc (lockware, small fittings)	Fine

Sisal and Sisal Cloth Buffs

Sisal is a natural material, perfect for the polishing process due its excellent compound retention properties. Sisal buffs are aggressive and usually follow a Coated Abrasive grinding process.



Pleated Sisal Cloth Buff

Regular folds with a sandwich of sisal web and cotton cloth, make the Osborn Pleated Sisal Cloth Buffs, an aggressive tool with good compound retention. For greater hardness and rigidity, Osborn dip treatments are available.

Manufactured in diameters up to 1600mm, they are perfect for robotic polishing of builders hardware or die cast parts. Use together with a cutting compound like Unipol 8660.



Airflow Sisal Cloth Buff

A flexible and economical cutting tool with irregular folds of sandwiched sisal and cotton cloth. Buffs can be mounted together to form a wider surface when polishing larger surfaces, particularly on flatbed machines. For extended life and less flexibility, Osborn dip treatments are available.

Suitable for a wide range of applications including builder's hardware and die cast parts.

Airflow Mini Sisal Cloth Buffs: a smaller 100mm version is also available.



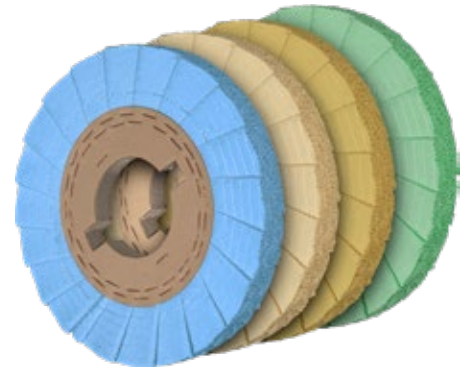
Airflow Sisal Cord Buff

The most flexible tools in the sisal range. Individual plaited cords wrap around contours, retaining sufficient cut in a cool process. Osborn dip treatments can be added to extend service life.

Airflow Sisal Cord Buffs are used primarily on door handles and exotic shaped parts. Best results are achieved with Unipol 8660 and Langsol P120.

Treatments

Osborn cloths are often mill-treated (at source) according to our specific demands, to make them stiffer or more flexible, longer wearing or to perfectly suit the Osborn polishing compounds. Alternatively, finished buffs made from cloth or combinations of cloth and sisal web, are dip-treated for extended service life, greater hardness or flexibility. Check out the various options.



Dip Treatments

Specially developed by Osborn, dip treatments extend service life, make the buffs harder or increase compound retention.

All dip treatments are water based and therefore environmentally friendly. Osborn does not use solvent treatments. Using high pressure vacuum equipment, the treatment is equally and thoroughly distributed through the buff and then cured for several hours.

Type	Colour	Hardness	Sisal cord	Sisal cloth	Sisal web	Tampico fibre	Cotton cloth
VI4	Dark green	10	X	X	X		
H5	Yellow	6	X	X	X		
H5A	Blue	3	X	X	X		
8S	Dark yellow	2	X	X	X	X	X

Sisal Types

Sisal is available as a woven fabric, sandwiched with cloth or plaited into cord.

Type	Characteristics		
Sisal Cloth	JB/101B	suitable for Pleated and Airflow Buffs	medium
Sisal Cord	Type 32	two cords twisted	light
	Type 48	eight cords braided	heavy



Sisal Cloth (Sandwich)



Sisal Cord

Cloth Buffs

An extensive range of different cloths in natural or mill-treated form have been developed to meet the demands of the polishing industry. All Osborn buffs are made with top quality, biased cloth, ensuring their resilience and a long service life.



Pleated Cloth Buff

The flat, regular pleats offer an excellent surface for retention of Osborn liquid and solid compounds. The hardness and flexibility of this buff depends on whether a mill-treated cloth, a standard cloth or a raised cloth is selected. This plus the choice of Osborn compound determines the polishing results.

Pleated Cloth Buffs are very versatile and flexible when processing sanitary fittings and builder's hardware.



Airflow Cloth Buff

The standard ventilated buff is suitable for almost every step in the polishing process. Various qualities of mill-treated or grey cloth can be selected depending on the results required. The irregular folds fixed to a metal clinch ring, form a flexible and economical buff. Buffs can be used individually or mounted on a wide shaft, depending on the equipment available. All grades of material can be matched to the appropriate Osborn polishing compounds.

Airflow Cloth Buffs are always an economical option. They are very versatile and flexible when processing sanitary fittings and builder's hardware. Chrysophor 190 and Unipol 2046 are recommended for robotic or manual polishing.



Cloth Mop

Discs of material are layered and stitched to a required width. Layers are arranged such that any fraying is minimal. By varying the grade of cloth and the stitching, different hardness's can be achieved.

Cloth mops remain a favourite although they do not have the advantages of our biased range. They are commonly used for robotic and manual operations. When much polishing, Mops are the tool of choice.

Cloth Types

Allow our experts to advise you on the most suitable cloth types for your specific polishing process.

Type	Characteristics		
Treated Cloth	301J	Treated yellow cloth, thin but dense weave	Cutting
	TT	Treated orange cloth hard dry	Cut & Colour
	BSKY	Treated blue cloth, flexible and resilient	Cut & Colour
	DF590	Treated light green cloth, soft dry	Cut & Colour
	6420	Light white treated cloth	Finishing
Grey Cloth	308	Harder cloth - high warp & weft count	Cut & Colour
	298	Hard cloth - quite flexible	Cut & Colour
	290	Medium cloth - quite dense	Polishing
	Sarja	Poly-cotton cloth - resilient, elastic	Polishing
	202	Soft - medium high quality cloth	Finishing
Raised Cloth	101A	Soft, standard cloth	Finishing
	MO5	Standard double raised	Colouring
	M310	Bleached white double raised	Colouring

Abrasive Non wovens

Abrasive non wovens consist of tangled nylon and/or polyester web with different types of abrasive grit particles resin bonded to the fibres. The material has an open and flexible structure, as it wears new abrasive is exposed to create a uniform and consistent finish whether on a flat or slightly profiled surface. Abrasive grit particles are usually Silicon Carbide or Aluminium Oxide. The material can be used in both wet and dry operations.



LIPPRITE® Wheel

Non woven abrasive flaps are bonded radially to a phenolic tube. Hardness can be varied by increasing or decreasing the number of flaps. The three-dimensional open web ensures a self-cleaning action for easy removal of surface contamination. Depending on the process, a technically defined surface result can be achieved or a visual surface. Lipprite® Wheels are extremely versatile in satin finishing operations.



Airflow Non Woven Buff

Usually 4 layers of non woven material are fixed to a metal clinch ring. The irregular folds offer a versatile satinising tool that performs best when minimal pressure is applied. This in turn increases the surface life of the Airflow. This is a highly economical buff.



Rolls, Discs and Handpads

For manual operations, Osborn offers a selection of rolls that can be cut to width as required. Alternatively, stamped discs and standard hand-pads are available.

Abrasives Non Woven Types

A selection of the most standard non woven types for the Non-ferrous industry.

Description	Grade	FEPA	Brass/Copper		Aluminium	
		Norm	Rz μm	Ra μm	Rz μm	Ra μm
A4	A Medium	AL2O3 120	0,95 - 1,2	7,0 - 9,0	1,05 - 1,6	8,0 - 12,0
A6	A Fine	AL2O3 180	0,45 - 0,73	3,5 - 5,5	0,70 - 1,05	5,0 - 8,0
A7	A Very Fine	AL2O3 240/320	0,30 - 0,45	2,2 - 3,5	0,5 - 0,85	4,0 - 6,5
S4	S Medium	SiC 120	0,95 - 1,2	7,0 - 9,0	1,05 - 1,6	8,0 - 12,0
S6	S Fine	SiC 180	0,45 - 0,73	3,5 - 5,5	0,70 - 1,05	5,0 - 8,0
S7	S Very Fine	SiC 240-320	0,30 - 0,45	2,2 - 3,5	0,5 - 0,85	4,0 - 6,5
S8	S Super Fine	SiC 500	0,20 - 0,30	1,5 - 2,3	0,33 - 0,60	2,5 - 4,5
S9	S Ultra Fine	SiC 800	0,12 - 0,20	0,8 - 1,5	0,20 - 0,40	1,5 - 3,0



Did you know, Osborn can also supply Lipprite® Rollers in widths up to 3,650 mm, perfect for a satin finish on aluminium and copper sheet or strip.

Coated Abrasives

Osborn offers a range of coated abrasive tools using the best materials on the market.



Coated Abrasive Flap Wheels

Tightly packed coated abrasive flaps arranged around a core make an effective grinding tool prior to polishing. Round parts, tubes, pots & pans or even the

sole of an iron benefit from this product with its long life and ability to continually reproduce the same surface when compared to coated abrasive belts.



Small Abrasive Flap Wheels with Shank

Small abrasive flap wheels on a 6 mm shank are available in non-woven, coated abrasive or a combination of both. They are suitable for use on power drills and high speed machines.

These wheels reach areas that are difficult to access. They adapt well to contours and produce a smooth uniform satin finish.

Type and Grit

Grit	40	60	80	120	150	180	220	240	280	320	400
X - standard	X	X	X	X	X	X	X	X		X	
J - flexible				X	X	X	X	X		X	X

Don't forget that you will find a huge selection of Abrasive Cutting Discs, Abrasive and Wire Brushes in the Osborn range. See www.osborn.com.

Accessories

Metal Centreplates, Nylon and Aluminium accessories can be used to reduce the inside diameter of Buffs.



Centreplates

Centreplates with ventilation holes are required to reduce the inside diameter of buffs to a bore size that suits the shaft on to which they are to be mounted. Metal centreplates are re-usable.



Interchangeable Metal Adapters

Small centreplates are specifically to reduce the buff inside diameter of 31.75 mm to a smaller size.



Nylon Centreplates and Spacer

Nylon centreplates are used to reduce the inside diameter of the buff. They can also be supplied as a combination of centreplate and spacer for quick and efficient mounting.



Mandrill

Mandrills in 6 mm are available to clamp polishing or satin finishing buffs with an inside diameter of 10 mm to 100 mm. Parts can then be used on a power drill. Mandrills are intended for reuse.

The Right Combination for Each Step of the Process

Osborn's policy is to work with our customers to find the perfect solution for every polishing process, taking into account the shape and size of parts to be finished, the material in question and its original surface quality. We need to understand the ultimate finish required, machines and equipment available and any subsequent processes.

Below, we have outlined some typical application combinations and starting points to help as we work with you to identify the optimum process.

Sanitary Fittings - Robotic Process

Process	Buff	Compound (solid)
Cutting	Maxi LM Buffs TT (orange)	Chrysophor 190 or Langsol 2.292
Colouring	Maxi LM Buffs 290 (white)	Langsol 1003A
Process	Buff	Compound (liquid)
Polishing	Maxi LM Buffs 290 (white)	Unipol 6734
Colouring	Maxi LM Buffs 101A (white)	Unipol 0001

Sanitary Fittings - Mush Polishing

Process	Buff	Compound (liquid)
Cut & Colour	Mini L Buffs Sarja	Unipol 6734

PVD Coating

Process	Non woven	Compound
PVD finishing	Lipprite A medium	No

Die Cast Parts

Process	Buff	Compound (liquid)
Cutting process prior anodising	Sisal Cloth M-EK Buffs	Unipol 8660

Aluminium Trim (shower units, kitchens)

Process	Buff	Compound (solid)
Satinising with nonwovens prior to anodising	Airflow Sisal Cloth Buff	Langsol 2.222

Aluminium Door Handles

Process	Buff	Compound (solid)
One step process	Cloth Airflow Buffs 290 (white)	Edelgelb

Process	Buff	Compound (solid)
Polishing	Maxi Mops 290 (white)	Langsol 2043JF
Colouring	Maxi Mops 101A (white)	Unipol 1305

Process	Buff	Compound (liquid)
Polishing	Maxi Mops 290 (white)	Langsol P120
Colouring	Maxi Mops 101A (white)	Unipol 2350S

Recommended Cutting Speeds

Material	Grinding	Cutting	Polishing	Colouring	Satin Finish
Non-ferrous	25-35	30-40	25-30	15-25	13-18

(M/S)



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