

World-leading Surface Preparation and Finishing Solutions

Abrasives



AIRBLAST EUROSPRAY, AN INTRODUCTION

Airblast Eurospray is one of the leading global voices in surface preparation and finishing. We design, manufacture, install and sell blast and spray equipment and facilities to some of the world's most important organisations. With roots stretching back to 1971, we're known for driving the market with innovative, technically excellent blast and paint solutions for a wide range of industries.

WORLD-LEADING BLAST AND SPRAY EXCELLENCE

Our equipment is used in many demanding environments where product integrity is vital – so we only manufacture and sell facilities and equipment that we know are:

- Robust
- Well-designed
- Powerful
- Able to deliver optimum performance – safely and efficiently

PROFESSIONAL RESULTS

We're proud to offer complete solutions for any blast and spray application with a full range of products and services to help you complete your work to a high professional standard. If you have a bespoke query or cannot locate a specific product our brochures, please contact our sales team who will be happy to help you.

KNOWLEDGE TRANSFER

Performance is nothing without knowledge - especially with safety-critical processes like blasting. That's why we provide full operator training with industry experts as well as top-up training to keep experienced operators up-to-date with the latest blast and paint technology and developments. Contact our Training Specialists on 01778 560650 to find out more.

SERVICE AND AFTERCARE

We want you to get the best from your equipment for years to come, so we offer:

- Product and facility servicing
- Service contracts with reduced parts and labour rates
- Equipment collection
- Site visits, inspection and investigation services
- Next day delivery on many products

EQUIPMENT HIRE

Want to try before you buy? Many of our products are available for hire including blast machines, coating systems, water injection pumps, vacuum transfer units, suction and pressure cabinets, dust arrestors, hand-held closed circuit blast machines, closed circuit blasting and extractor fans. Contact our Hire Team for more information.

Finance packages available to help spread the cost of purchase. Get in touch today.

AIRBLAST EUROSPRAY

Telephone: 01778 560650

Unit 26 King Street Industrial Estate
Langtoft
Peterborough
PE6 9NF

sales@airblast.co.uk

ABRASIVES

Aluminium Oxide

Virgin Brown Aluminium Oxide is a sharp, fast-working abrasive ideally suited for hand cabinets and blast rooms. Used wet or dry, where ferrous blasting abrasives are not suitable due to the risks of corrosion and magnetisation involved. Ideal for extremely hard workpieces. Reclaimed aluminium oxide is a cheaper alternative to virgin brown but not as cost effective, due to increased breakdown when blasting at high pressures.

White and pink aluminium oxide also available.

Size	Equivalent (mm)	Size	Equivalent (mm)
12	1.68–2.0	60	0.25–0.297
14	1.41–1.68	70	0.21–0.25
16	1.19–1.41	80	0.177–0.21
20	1.0–1.19	90	0.149–0.177
24	0.71–0.84	100	0.125–0.149
30	0.59–0.71	120	0.105–0.125
36	0.50–0.59	150	0.074–0.105
46	0.35–0.42	180	0.062–0.088
54	0.297–0.35	220	0.053–0.074

Tumbling Media sizes	
Size	Equivalent (mm)
2	-44
3	+22
3.5	-22
4	+16
4.5	-16
5	+13
6	-13
7	+8

Reclaimed Blended sizes
12/16
16/24
24/30
30/40
40/60
60/80
80/120
120/220

Steel shot

Made from high carbon, tempered steel providing durability and resistance to fracture. Used for peening and cleaning. Typical applications include metal improvement, stress relief, removal of heat treatment residue, mill scale, rust, paint and sand from castings.

Steel grit

Cleans quicker than shot but breaks down at a faster rate. Steel shot or grits are not suitable for certain applications and surface corrosion may occur after treatment. Immediate coating or temporary protection is essential. Metallic abrasives are available in three different types with suitability depending on application.

Chilled iron

White iron structure which shatters on impact. Harder than steel with a quicker cleaning action. For use in air driven machines to complement their speed and flexibility. The grits are frequently used to etch structural steel and components prior to coating with paint, metal spray or plastics.

Chilled Iron	
Ref No.	Size (mm)
G05	0.125–0.3
G07	0.18–0.42
G11	0.30–0.71
G17	0.42–1.0
G28	0.7–1.2
G39	1.0–1.4
G46	1.2–1.7
G55	1.4–2.0
G66	1.7–2.4

Steel Grit	
Ref No.	Size (mm)
G05	0.125–0.3
G07	0.18–0.42
G11	0.30–0.71
G17	0.42–1.0
G28	0.7–1.2
G39	1.0–1.4
G46	1.2–1.7
G55	1.4–2.0
G66	1.7–2.4

Steel Shot	
Ref No.	Size (mm)
S70	0.18–0.35
S110	0.3–0.5
S170	0.42–0.71
S230	0.6–0.85
S280	0.71–1.0
S330	0.85–1.2
S390	1.0–1.4
S460	1.2–1.7
S550	1.4–2.0

Copper Slag

An expendable synthetic mineral abrasive which is widely favoured for open nozzle blasting applications by virtue of its fast rates. A range of grades is available to suit most applications.

Grade	Grain Size (mm)	Average Max Profile*	Cleanliness Standard*	Typical Application
Extra Fine	0.1–0.8	25–45	Sa3	Wet blasting, motor bodywork, selective coating removal, timber cleaning
Fine	0.2–1.7	60–90	Sa3	Selective coating removal, steelwork, tanks, pipes, brickwork and concrete
Coarse	2.0–2.5	100–150	Sa2	Marine growth, cement build up, heavy corrosion and concrete exposed aggregate blasting

ABRASIVES

Glass Bead

Produced from soda-lime, glass beads are used for peening and the removal of almost any surface blemish. They can be used safely for texturing or producing attractive cosmetic finishes, without damaging the base material. Being totally inert, there is no risk of corrosion or any contamination. Unless excessive blasting occurs there is no alteration in the dimensions of the treated surfaces. Strict control of both manufacturing and grading processes ensure consistency of finish.

25kg bags shrink wrapped on 1 tonne non-returnable pallets.

Grade	Microns	Mesh	Inches	Alternative supplier reference					
A	590–840	20–36	0.0234–0.0331	BT3		400–800	203		MS–XPX
B	420–590	30–40	0.0165–0.0234	BT4		200–600	204	H8	MS–XP
C	250–420	40–60	0.0098–0.0165	BT5	BOL21	300–400	205	H9	MS–P
AB	177–297	50–80	0.0070–0.0117	BT6	BOL23	150–300	206	H10	MS–XH
AC	149–250	60–100	0.0059–0.0098	BT7	BOL24	149–250	207	H12	MS–H
AD	105–210	70–140	0.0041–0.0083	BT8	BOL25	100–150	208	H13	MS–M
AF	74–149	100–200	0.0029–0.0059	BT11	BOL27	74–149	209	H14	
AG	53–105	140–270	0.0021–0.0041	BT12		53–105		H16	MS–ML
AH	44–88	170–325	0.0017–0.0035	BT13		0–100		H18	MS–L
AQ	30–60	270–500	0.0012–0.0024					H22	MS–XL

Glassia Grit

Multi-purpose expendable abrasive, safe alternative to silica sand suitable for cleaning brick, stone, concrete, wood, stainless steel and soft alloys to provide a fine profile prior to coating application or a decorative satin finish. Ideal for applications where a light coloured abrasive may be more aesthetically or environmentally acceptable.

Grade	Size range (mm)	Bag size (kg)
Fine	0.20–0.50	25 bags
Medium	0.50–1.25	25 bags
Coarse	1.00–2.00	25 bags

Olivine

Olivine is a naturally occurring silica-free material of low specific density and is available in four sizes. Olivine is particularly good for many light blasting applications, and has proven very popular with expendable users. It is sand coloured and highly suitable for wet blasting and building cleaning where darker media may cause a nuisance, for instance on clean up or with impingement. Airblast Eurospray Olivine is iron free and contains no free silica so can also be used on stainless steel and aluminium surfaces for coating preparation or removal applications.

Grade	Size range (mm)	Surface profile*
AFS80	0.090–0.250	Extra fine
AFS50	0.125–0.500	Fine
AFS30	0.180–1.000	Medium
AFS20	0.355–2.360	Coarse

*Achieved in Mild Steel (BS 7079)

ABRASIVES

Garnet

Garnet is dense, tough and dust-free for fast cleaning and coating removal. Particularly suitable where material can be recycled, making it very economical. Generally works 30%–50% faster than slag grits, due to its higher density.

Grade	Micron	Cleanliness standard
Fine	150/300	Sa3
Medium	200/600	Sa3
Coarse	500/1000	Sa3

Plastic media

Type II

Made from Urea, it is more aggressive than Type V and suits light industrial cleaning. For use at low pressure it is fast, efficient and non-damaging. A cost effective replacement for chemical stripping and superb paint remover.

Type V

Made from Acrylic, Type V solves coating removal and surface preparation problems. It provides rapid coating removal, minimal substrate abrasion and is a low-cost alternative to chemical stripping and sanding.

Physical Characteristics	Type I	Type II	Type III	Type V
MOHS	3.0	3.5	4.0	3.5
Barcol	34–42	54–62	64–72	46–54
Specific Gravity (g/cc)	1.15–1.25	1.47–1.52	1.45–1.52	1.15–1.20
Bulk Density (lbs/ft ³)	45–48	58–60	58–60	45–48
Max. Oper. Temperature (°F)	250	300	350	200
Chemical Nature	Inert	Inert	Inert	Inert

NOT SURE WHICH
ABRASIVE IS RIGHT FOR
YOUR JOB?

CONTACT OUR SALES TEAM FOR ADVICE
ON 01778 560650



STEEL SURFACE FINISHING STANDARDS

	SA1	SA2	SA2 1/2	SA3																													
	BRUSH-OFF BLAST CLEANING Removal of loose mill scale, loose rust and loose paint, to a degree hereafter specified, by the impact of abrasives propelled through nozzles or by centrifugal wheels. It is not intended that the surface shall be free of all mill scale, rust and paint. The remaining mill scale, rust and paint should be tight and the surface should be sufficiently abraded to provide good adhesion and bonding of paint. A brush-off blast cleaned surface finish is defined as one from which all oil, grease, dirt, rust scale, loose mill scale, loose rust and loose paint or coatings are removed completely but tight mill scale and tightly adhered rust, paint and coatings are permitted to remain provided that all mill scale and rust have been exposed to the abrasive blast pattern sufficiently to expose numerous flecks of the underlying metal fairly uniformly distributed over the entire surface.	COMMERCIAL BLAST CLEANING Removal of partial mill scale, rust, rust scale, paint or foreign matter by the use of abrasives propelled through nozzles or by centrifugal wheels, to the degree specified. A commercial blast cleaned surface finish is defined as one from which oil, grease, dirt, rust scale and foreign matter have been completely removed from the surface and all rust, mill scale and old paint have been completely removed except for slight shadows, streaks, or discolouration caused by rust stain, mill scale oxides or slight residues of paint or coating that may remain if the surface is pitted, slight residues of rust or paint may be found in the bottom of pits at least two-thirds of each square inch of surface area shall be free of all visible residues and the remainder shall be limited to the light discolouration, slight staining or tight residues mentioned above.	NEAR-WHITE BLAST CLEANING Removal of nearly all mill scale, rust, rust scale, paint, or foreign matter by the use of abrasives propelled through nozzles or by centrifugal wheels, to the degree hereafter specified. A near-white blast cleaned surface finish is defined as one from which all oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint or other foreign matter have been completely removed from the surface except for very light shadows, very slight streaks or slight discolourations caused by rust stain, mill scale oxides, or light, tight residues of paint or coating that may remain. At least 95% of each square inch of surface area shall be free of all visible residues and the remainder shall be limited to the light discolouration mentioned above.	WHITE METAL BLAST CLEANING Removal of all mill scale, rust, rust scale, paint or foreign matter by the use of abrasives propelled through nozzles or by the centrifugal wheels. A white metal blast cleaned surface finish is defined as a surface with a grey-white, uniform metallic colour, slightly roughened to form a suitable anchor pattern for coatings. The surface, when viewed without magnification, shall be free of all oil, grease, dirt, visible mill scale, rust, corrosion products, oxides, paint, or any other foreign matter.																													
<p>STEEL SURFACE LARGELY COVERED WITH ADHERING MILL SCALE BUT LITTLE, IF ANY, RUST.</p>	<p>STEEL SURFACE WHICH HAS BEGUN TO RUST AND FROM WHICH THE MILL SCALE HAS BEGUN TO FLAKE.</p>	<p>STEEL SURFACE ON WHICH THE MILL SCALE HAS RUSTED AWAY, BUT WITH SLIGHT PITTING VISIBLE UNDER NORMAL VISION.</p>	<p>STEEL SURFACE ON WHICH THE MILL SCALE HAS RUSTED AWAY, GENERAL PITTING IS VISIBLE UNDER NORMAL VISION.</p>																														
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ACHIEVING THE BEST FINISH

The finish surface achieved by abrasive blast cleaning depends upon the original surface condition as well as the type of abrasive blasting equipment, size, hardness, type and abrasive shape.

THE ORIGINATING SURFACE CONDITION OF STEEL IS:

- ▶ Steel surface largely covered with adhering mill scale by little, if any, rust.
- ▶ Steel surface which has begun to rust and from which the mill scale has begun to flake.
- ▶ Steel surface on which the mill scale has rusted away or from which it can be scraped, but with slight pitting visible under normal vision.

SURFACE CLEANLINESS IS DIVIDED INTO FOUR GRADES:

- ▶ SA 1 Brush off.
- ▶ SA 2 Commercial.
- ▶ SA 2-1/2 Near white metal.
- ▶ SA 3 White Metal.

Besides cleanliness of the steel, consideration needs to be given to the etch or profile roughness created by the impact of the abrasive on the steel surface.

THE SUBSTRATE PROFILE IS REGULATED BY:

- ▶ Shape, type and grading of abrasive.
- ▶ Blasting method and velocity of abrasive impaction.
- ▶ Steel condition prior to blasting.

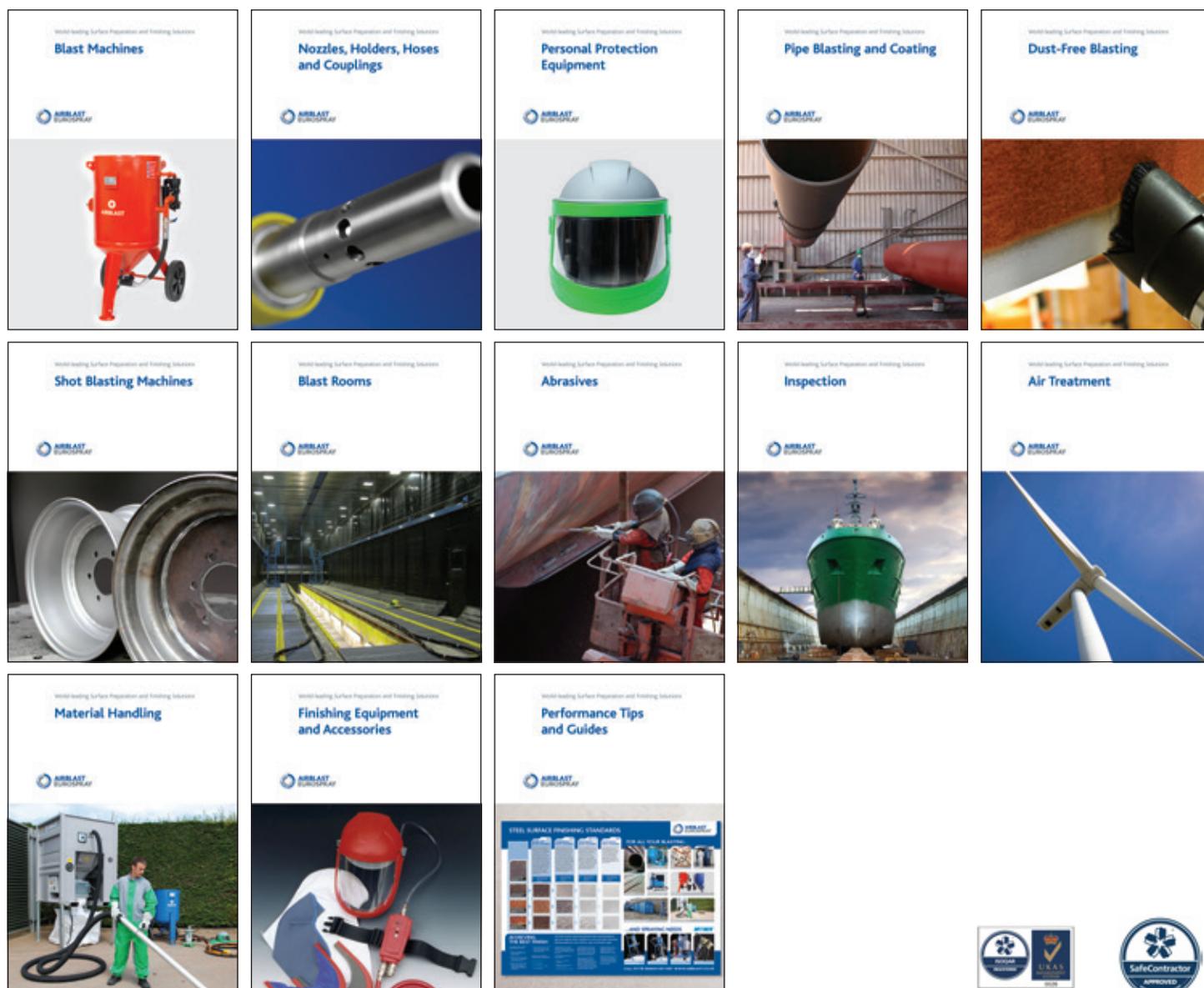
The etched profile of the surface enables adhesion of the protective paint coatings. If the level at which this is achieved is too severe it will cause a waste of paint. If too light, it may cause a lack of adhesion.

The best method of obtaining a profile specification is to ensure the correct blasting equipment and method are combined with the correct abrasive. Once these requirements have been decided upon, the selection of method, equipment and training of personnel should be instigated.

Equipment used for surface preparation must be extremely reliable and simple to use. Operation information and training should be up-to-date.

Airblast has become the industry standard for manufacturing and supplying surface finishing equipment worldwide through a network of branch-offices as well as distributors.

WORLD LEADING SURFACE PREPARATION & FINISHING SOLUTIONS



Airblast Eurospray account

To open an account, simply get in touch with us today.

All products sold are subject to our standard Terms and Conditions, which are available on request. E&OE. Price does not include delivery.

Products and services

- Blast rooms
- Abrasive blast cabinets
- Portable blast systems
- Blast accessories
- Lighting systems
- Compressors
- Dust recovery equipment
- Paint spray booths
- Coating systems
- Coating accessories
- Personal Protective Equipment
- Media
- Testing equipment
- Design and build
- Servicing
- Reconditioning
- Pressure testing
- Training
- Sample processing
- Equipment hire

Contact us

For further information on how our products and services could benefit your company, please contact us by any of the means below.

Airblast Ltd
Unit 26, King Street Industrial Est
Langtoft, Peterborough
Cambridgeshire PE6 9NF

Tel 01778 560650
Fax 01778 560724
sales@airblast.co.uk
www.airblast.co.uk