



SYNCO

ABRASIVES & WIRES

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SYNCO ABRASIVES

1.1 Glass Beads:

SyncoLite™ Glass Beads are an established blasting media for air assisted blasting applications using pressure induction suction and wet blasting principles and is used for cleaning, conditioning or peening metallic surfaces. SyncoLite™ is manufactured from high-grade crushed and sized glass cullet, which is melted to a spherical shape and annealed for uniform and controlled internal stresses and superior fracture resistance.

These transparent spheres which are non abrasive in nature function without any damage to or dimensional change in the surface of the object embedment, contamination or pick-up. Depending on the selection of size and operating parameters, SyncoLite™ achieves desired surface finish and texture from fine matte to bright satin. Decorative and special effects are achieved by using masking stencils and blasting exposed surfaces with SyncoLite™. Critically tolerance objects, dies, moulds, component etc. can be cleaned, deburred, textured without removing any base metal, ensuring the sanctity of the critical tolerances due to the intrinsic quality of Syncolite glass beads. In addition, the inherent strength of glass beads allows it to survive multiple impacts, making it extremely suitable for use in closed cycle blasting equipment fitted with recycling facilities. Being chemically inert, and non-toxic, SyncoLite™ Glass Beads do not leave any unwanted or ferrous residue on blasted surfaces. Spent media which is not contaminated is environmentally harmless.

S. No.	Description	Grade	Micron size	Inches
1.	Coarse I 'O'	SGB – 2	600 – 600	0.023 – 0.033
2.	Coarse II 'BL'	SGB – 3	425 – 600	0.016 – 0.023
3.	Medium 'C'	SGB – 4	250 – 425	0.009 – 0.016
4.	-	SGB – 5	212 – 425	0.008 – 0.016
5.	-	SGB – 6	212 – 300	0.008 – 0.011
6.	-	SGB – 7	180 – 300	0.007 – 0.011
7.	-	SGB – 8	125 – 250	0.005 – 0.010
8.	Fine 'AD'	SGB – 9	106 – 212	0.004 – 0.008
9.	Superfine I 'AF'	SGB – 10	90 – 150	0.003 - 0.006
10.	-	SGB – 11	53 – 106	0.002 – 0.004
11.	-	SGB – 12	45 – 90	0.001 – 0.003
12.	Superfine II 'AQ'	SGB – 13	< 53	< 0.002

1.2 Road Marking Beads:

These are universally used for striping highways and marking roads, runways etc. Its usage results in very superior visibility of the traffic markings and road signs reflectivity ensuring night driving conditions. Beads with even higher refractive index can be used for road safety signs. Road Marking beads are available in three types - Drop On (Type D), Intermix (Type N) and Premix (Type P). Type P and N beads are mixed with the paint prior to striping the roads.

With the wearing of the paint layers, the beads are exposed giving enhanced visibility to the road markings. Road Marking D beads are dropped on the freshly painted surfaces to give immediate enhanced visibility to night drivers. Ideally all the three Road Marking Type N, D and P beads should be used in conjunction with each other.

Type D beads are of three versions - normal, moisture-proof and flotation type. The moisture-proof variety has a special coating on the surface of the beads, to prevent agglomeration of the beads due to moisture. As such enabling them to **increase** the flowability of the beads leading to ease of application with dispensers.

The flotation beads are coated with a special material, to alter the surface tension properties of the beads marking them float on the surface of the wet paint higher initial levels of reflectivity on drying than those marked with normal beads. The highest degree of reflectivity is achieved if the beads are true round spheres. Non round particles reflect the light into different directions, as against reflecting it to the light source by the beads.

1.3 Crushed Glass Grit

It is an Angular Blast media manufactured from recyclable bottles and plate glass and produces an excellent finish and profile leaving the surface contamination free. It is low cost expendable impact blast cleaning media free silica or heavy metals posing no health hazards as compared to silica or slag media. The sharp angular edges having a cutting action provide a fast cleaning action at lower pressures producing an excellent surface profile preparation. Its typical use include preparation of ferrous and non ferrous metal surfaces prior to coating; removal of rust, paint, dirt and old coatings; cleaning of components in contamination sensitive areas.



1.4 Aluminium Oxide Grits

Syncolox is an angular sharp edged, durable impact blasting abrasive, which can be recycled many times. It is the most suitably used abrasive process media for sand blast finishing and surface preparation in view of its cost, longevity and hardness matrix. Harder than most commonly used blasting media, Syncolox grit powder is capable of penetrating and cutting even the hardest metals and sintered carbide. Being about 50% lighter than metallic media, Syncolox abrasive grain has twice as many particles per kg. The fast-cutting action minimizes damage to thin materials by eliminating surface stresses caused by heavier, slower cutting media.

Syncolox grit powder has a wide variety of applications, which includes cleaning engine heads, valves, pistons and turbine blades in the aircraft industry and lettering in monument and marker inscriptions. It is almost ubiquitously used for matte finishing, cleaning and desired surface roughening of parts for metalizing, plating and welding. Syncolox abrasive grain is the best choice for an abrasive sand blasting and polishing process media also for preparing of surface for painting.

As a premier aluminum oxide abrasive process media supplier, we recommend using virgin, brown aluminum oxide for optimal performance as against reprocessed or remanufactured product. Syncolox Virgin, brown aluminum oxide is grit size is consistent and cuts much faster than sand, leaving a smoother surface. Generally, the larger the grit size, the faster the Syncolox aluminum oxide will cut.

S. No.	Is grit no.	Particle size range, mm	Equivalent bs sieve range	Retention
				Min. By weight
1.	12	2.00 - 1.40	10 - 12	50 %
2.	16	1.40 - 1.00	14 - 16	50 %
3.	20	1.00 - 0.710	18 - 22	50 %
4.	30	0.710 - 0.425	25 - 36	50 %
5.	40	0.500 - 0.300	36 - 52	50 %
6.	60	0.355 - 0.180	60 - 85	50 %
7.	80	-	-	-
8.	100	0.212 - 0.125	85 - 120	50 %
9.	220	-	-	-

WHITE ALUMINUM OXIDE GRITS:

Syncolox White aluminum oxide (or white aluminium oxide) grit is a 99.5% ultra pure grade of blasting media. Syncolox is being more and more preferred for use in critical, high-performance applications particularly where no ferrous contamination of the job is tolerable. The purity of this media along with the variety of grit sizes

available make it ideal for both traditional as well as high-quality processes and applications. Syncolox oxide is an extremely sharp, long-lasting blasting abrasive that can be recycled many times. It is a widely used abrasive in impact blast finishing and surface preparation because of its cost, longevity and hardness. Being harder than most other commonly used blasting media, Syncolox grains penetrate and cut even the hardest metals and sintered carbide. About 50% lighter than metallic media, Syncolox has twice as many particles per kg. Its fast-cutting action minimizes damage to thin materials by containing surface stresses caused by heavier, slower-cutting metallic blasting grits. Syncolox abrasive impact blasting media has a wide variety of applications, including cleaning engine heads, valves, pistons and turbine blades in the aircraft and power generation equipments automotive industries. Syncolox is an excellent choice for preparing a hard surface for painting too. Syncolox contains less than 0.2% free silica and is therefore safer to use than sand. The grit size is consistent and cuts much faster than other sand blasting media, leaving a smoother surface. Syncolox can be safely used and recommended for Synco's Air assisted abrasive impact blasting machines working on pressure induction-suction, wet, pressure and vacuum blasting principles.

Grit Designation	Mean Diameter in Microns	Grit Designation	Mean Diameter in Microns
F 16	1000		
F 24	745	F 80	185
F 30	625	F 90	154
F 36	525	F 100	129
F 40	438	F 120	109
F 46	370	F 150	82
F 54	310	F 180	79
F 60	260	F 220	58
F 70	218		

1.5 Syncogrit Chilled Iron Grit/ Shots:

Syncogrit is a sharp, hard, angular, metallic impact abrasive media ideally suited for extremely fast impact blast cleaning of steel and iron objects. Its friability makes it break down during recycling to form smaller particles, inheriting the same sharp, angular properties and shape as the original particles.

This unique feature of Syncogrit results in faster cleaning rates and high productivity. As the particle shape is constantly maintained the abrasive is highly suitable when repeatable, consistent surface profile and finish is desired. Syncogrit is ideally suited for compressed air blasting application especially when high production rate is required. It can be appropriately used in SYNCO compressed air dry blasting machines working on pressure induction-suction, and pressure vacuum blasting principles.

Being lower in cost it is an economical alternative for steel abrasives. It also offers a viable alternative to copper slag or other expendable abrasive media as it can be recycled up to 50 times.

GRIT SIZES

S. No	I.S.GRIT NO.	I.S. SIEVE APERTURE MM	RETENTION MIN. BY WEIGHT.	OVERALL SIZE RANGE, MM	EQUIVALENT	BS MESH (BS GRIT NO *)
1.	G-C200	2.00	80 %	1.40 - 2.80	8	(G80)
2.	G-C170	1.70	80 %	1.18 - 2.36	10	(G66)
3.	G-C140	1.40	80 %	1.00 - 2.00	12	(G55)
4.	G-C100	1.00	75 %	0.710 - 1.40	16	(G39)
5.	G-C60	0.600	70 %	0.425 - 1.00.	25	(G24)
6.	G-C42	0.425	70 %	0.300 - 0.850	36	(G17)
7.	G-C30	0.300	65 %	0.180 - 0.710	52	(G12)
8.	G-C18	0.180	65 %	0.090 - 0.425	85	(G07)

SHOT SIZES

S. No	I.S.GRIT NO.	I.S. SIEVE APERTURE MM	RETENTION MIN. BY WEIGHT.	OVERALL SIZE RANGE, MM	EQUIVALENT	BS MESH (BS Shot NO *)
1.	S-C2000	2.00	85 %	1.40 - 2.80	8	(S800)
2.	S-C1400	1.40	85 %	1.00 - 2.00	12	(S550)
3.	S-C1000	1.00	80 %	0.710 - 1.40	16	(S390)
4.	S-C600	0.600	75 %	0.425 - 1.00	25	(S240)
5.	S-C425	0.425	75 %	0.300 - 0.850	36	(S170)
6.	S-C300	0.300	70 %	0.180 - 0.600	52	(S120)

1.6 Synco Casted Steel Shots:

This type of abrasive is a globular product, made of hypereutectoid steel. It corresponds with the international standards and undergoes a fully controlled thermal treatment in the conditions of achieving the optimal resilience and fatigue capacity of the metal. Steel shot is used to achieve the bulk and the maximum kick effect and is mostly applied for shot-casting and shot-blasting of castings, forgings and rolled products, for surface hardening of the machine building parts, for rolls'ragging and for other technological purposes

SyncShots can be used with Synco make compressed air assisted airless impact blasting machines.

S. No	I.s. Shot no.	Is sieve aperture mm	Retention min. By weight	Overall size range, mm	Equivalent sae no. (bs mesh)
1.	S-S 2000	2.00	85 %	1.40 - 2.80	S-780 (8)
2.	S-S 1700	1.70	85 %	1.18 - 2.36	S-660 (10)
3.	S-S 1400	1.40	85 %	1.00 - 2.00	S-550 (12)
4.	S-S 1180	1.18	80 %	0.850 - 2.00	S-460 (14)
5.	S-S 1000	1.00	80 %	0.710 - 1.70	S-390 (16)
6.	S-S 850	0.850	80 %	0.600 - 1.40	S-330 (18)
7.	S-S 710	0.710	80%	0.500 - 1.18	S-280 (22)
8.	S-S 600	0.600	75 %	0.500 - 1.00.	S-230 (25)
9.	S-S 425	0.425	75 %	0.300 - 0.850	S-170 (36)
10.	-	0.300	75 %	0.180 - 0.600	S-110 (52)

Casted Steel Grits

Blasting with Syncgrit is ideal for aggressive cleaning applications. Syncgrit quickly strips surface contaminants of almost all kinds from steel and other foundry metals. Syncgrit is softer than Aluminium oxide and does not fracture as easily, making it ideal for applications requiring lesser cutting action, quick cleaning and economy such as aircraft and aero-space applications. The angular nature of Syncgrit produces an etched surface on metal for superior adhesion of paint, epoxy, enamel, rubber and other coatings.

Syncgrit when formulated as a softer (40-50 HRC) metal will round off rapidly, making it ideal for quick stripping of oxides and cleaning of molds. Harder Syncgrit (55-65 HRC) maintains its angular nature resulting in continuous cutting action.

Sizes Available

Grit Size	Approximate Size	Finish Produced
G-120	0.005"	Light etch
G-80	0.007"	Medium etch
G-50	0.011"	
G-40	0.017"	
G-25	0.023"	Sharp etch
G-18	0.039"	Deep etch rough
G-16	0.046"	
G-14	0.055"	
G-12	0.066"	Very rough

1.7 Plastic Grit:

Syncplasticgrit media is utilised in where a controlled, gentle and non abrading action damage or etching of the underlying substrate is required. Syncplasticgrit’s low hardness and specific gravity makes it ideally suited in the most sensitive of applications. Syncplasticgrit can be used in both dry and wet compressed air assisted blasting equipment and is effective at very low blasting pressures, ensuring no damage to the component being blasted, Syncplasticgrit is pre treated with an anti static agent to prevent adhesion to the component when used in dry compressed air assisted blasting process to avoid wastage.

Syncplasticgrit high durability and irregular particle shape ensures maximum productivity and abrasive life when utilised in equipment having recycling and reclassification facilities. Syncplasticgrit is highly suited for flash removal from discreet computer components, paint removal or cleaning of soft or easily damageable substrates such as aluminium, silver, copper, gold, composites, fiber glass, wood etc as also for the removal of residues from moulds without any dimensional change or adversely affecting the underlying surface.

1.8 Copper Slag:

Syncoslag is a low cost expendable media suited for impact blast cleaning in open, due to its low cost and silica free nature ensuring no health hazard linked to the use of silica sand. Its sharp, hard cutting edges ensure a fast cleaning action and excellent surface profile preparation. It is one of the most economical abrasives media available for cleaning steel surfaces where recovery and reuse are not practical like in case of shapes during maintenance, tank forms, pipe lines and other large structures.

Syncoslag is typically used for removal of mill scale, rust, paint layers, dirt and old coating; and creation of deep surface profiles, required for superior adhesion of the subsequent coatings; It can also be used as an additive for floor hardening.

1.9 Garnets

Syncgar is derived from mined Almandine mineral deposits which is the heaviest and hardest of the all garnet types, resulting in an ideal abrasive grain for blasting applications. Syncgar has sub-angular shape leading to extremely fast cutting rates resulting in lower abrasive consumption. The high specific gravity of Syncgar, and its low breakdown rate, results in significantly reduced dust levels, ensuring good operator visibility and lesser risk to personnel or environmental contamination in surrounding areas when compared with other expendable mineralic abrasive media. The low consumption rate and recyclability up to 5 times reduces the volume of waste for disposal. Being a naturally occurring mineral it is non polluting to the environment.

Syncgar can be used for preparation of steel and non ferrous metal surfaces prior to coating, as cutting media for water jet cutting machines, engraving of stone and glass, cleaning of concrete and brickwork, cleaning of components in contamination sensitive areas, and bonded and coated abrasives.

1.10 Ceramic Beads : Zirconia /Zir Shots

SYnczir beads are generally used for surface cleaning of rubber and plastic moulds, castings, boiler and heat exchanger parts. It is also used for the peening and peen forming of components, particularly in the aerospace industry. SYnczir when used for peening are superior to traditional peening media, like steel shot and glass beads. As it can achieve similar peening intensities with a lower surface roughness. SYnczir can be used in peening applications place of steel shots where ferrous contamination is not acceptable.

The higher density of ceramic beads ensures peening intensities equal to those obtainable with glass beads at a reduced abrasive velocity. Synczir thus have a far less abrasive breakdown and dust generation which in turn results in cleaner working environment and better operator visibility. Synczir narrow particle size distribution coupled with low breakdown rates up to 15:1 on compared to glass beads enables repeatable, consistent result to be achieved, a critical consideration when selecting a media for peening application. Typical application includes mould cleaning, deburring delicate items, peening and stress relieving, deburring plastic components and paint removal.

1.11 Cut Wire Shots

Syncut is a popular alternative to cast steel abrasives, and finds specific applications where cast materials do not offer adequate performance. This is specifically so for peening applications where a higher level of abrasive hardness and uniformity of size is desirable or when components to be peened have a high level of inherent hardness. In order to achieve repeatable peening results, the ideal peening media should contain particles of identical size, shape, hardness and density. Syncut being manufactured from wire strand, cut to lengths equal to its diameter virtually identical particles in size, shape, hardness and density and thus a media ideally suited for peening purposes.

Syncut Carbon Steel and Cut Wire Stainless Steel are supplied in 3 forms depending on the requirements of the application. 1. As Cut (cylindrical with sharp edges), 2. Partially Conditioned (corners rounded off) and 3. Fully Conditioned (spherical). Syncut in Stainless Steel work hardens the more it is used, resulting in to an extremely long abrasive life span. The almost uniform size range of the Syncut particles ensures consistent and repeatable results are achieved when used for surface finishing and treatment of metallic materials.

Syncut Carbon Steel shots are very versatile and durable when compared to cast steel abrasives, due to virtually no internal flaws, ie porosity, shrinkage, cracks etc. Its higher density also offers a higher blast impact when compared with cast steel abrasives. Syncut Stainless Steel shots find applications in cleaning, polishing stainless steel rods, pipes and nonferrous die-cast castings (such as aluminium and magnesium). Syncut stainless steel shots are also used for cleaning magnetic parts when ferrous residues are not acceptable. Cut Wire Aluminium and Zinc are predominantly used for sand, stain and burr removal and to produce a glossy finish on components. It also used in wheel blast applications where a 'soft impact' is desired during the blasting process.

1.12 Synconox : Stainless Steel High Chrome/Nickle Shot

Stainless Steel Shot is one of the longest lasting most durable abrasives available. Produced from 300 Series Cast Stainless Steel, Stainless Steel Shots provide repeatable, consistent performance for thousands of cycles, a critical factor when used for shot peening purposes. Because of continuous impacting during use, Synconox Shots work hardens itself, its internal structure changes from austenitic to martensite. This transformation enables Synconox Shots to withstand up to 5000 impacts. As produced, Synconox Shots has a hardness of approx. 220 HV. with continuous use, the hardness will increase to approx. 530 HV after 2000 cycles. Due to its exceptionally low break down rate, virtually no dust is produced from the abrasive itself. The non-brittle nature and high density of Synconox Shots, results in high impact energies to the work piece, and faster cleaning rates. Synconox Shots are used for applications where residue on the blasted component is undesirable and/or when a very bright surface finish is required. It will leave no ferrous residue or staining on the work piece. Synconox Shots is widely used on magnesium, aluminium, nickel and chromium based alloy components and other non-ferrous parts.

Application

Synconox shot is used for grit blasting (shot blasting), wherever ferrous residues are likely to create rust spots or undesired discolouration is to be avoided.

CHEMICAL STRUCTURE

C	:	0.20 ± 0.05%	Cr	:	18.00 ± 2.00%
Ni	:	8.00 ± 1.00%	Si	:	2.00 ± 0.50%
Mn	:	1.00 ± 0.30%			

SIZES AVAILABLE

SYN ^{TAL}	200	150	100	90	60	50	40	30	20	10
mm.										
4.0	0									
3.35	10 max.									
2.8		0								
2.36		10 max.								
2.0			0							
1.7	90 min.		20 max	0						
1.4				5 max	0					
1.18		90 min.			20 max	0				
1.0						5 max	0			
0.85			90 min.	90 min.						
0.71					90 min.		20 max			
0.60						85 min.		0		
0.425							90 min.	20 max	0	
0.300									10 max.	

0.250										0
0.150								90 min.		10 max.
0.075									90 min.	
0.045										90 in.

1.13 Zinc Cut Wire Shots

SyncZinc Shot is a soft metallic shot, used with preference in the die-casting and gravity casting industries for deburring and deflashing of aluminium and zinc alloy castings. SyncZinc Shot is an ideal abrasive for blasting corrosion resistant steels and non-ferrous products, as the risk of ferrous contamination to the surface is not acceptable. SyncZinc Shot is manufactured from virtually pure zinc. This enables it to be used in applications where there is a high risk of explosion if an aluminium shot were to be used. This risk is typically manifested when deflashing aluminium components with aluminium shot. The dust generated can lead to an explosive atmosphere as the Aluminium shots are about 10 times more explosive than Zinc Shot, therefore the use of Zinc Shot greatly reduces the risk of explosion. Also, SyncZinc Shot is about 2.5 times denser than aluminium shot making it a far superior media for deflashing or deburring of components that would ordinarily not be deflashed or deburred adequately with aluminium shot. Its high density enables it to remove burrs up to 40% in size of the shot's diameter. Zinc Shot removes burrs 0.5mm thick, whilst an equivalently sized aluminium shot will remove a burr only 0.3mm thick.

1.14 Corncobs

Corncob grit is an environmentally safe, smooth flowing abrasive made from the hard cob. It is used primarily as a tumbling and vibratory media to absorb dirt and oils and to dry parts, without affecting the surface of the parts. Corn cob grit is also a safe blasting media for delicate parts.

Corn cob grit is a good choice for jobs that require both an abrasive and absorbent counterpart. Oils and liquids are absorbed by the grit while at the same time the surface is being polished, finished, or deburred. Corn cob grit is considered a soft abrasive, having a Mohs hardness rating of 4.5. Corn cob grit is free flowing and highly absorptive. These characteristics make it a great choice for feed additives and insecticides and fertilizers.

Corn Cob Grit Applications:

- **Media** for finishing, tumbling, and blasting; as a
- **Carrier** for fertilizers, insecticides, and feed additives
- **Absorbent** for hazardous wastes, liquids, grease and oils.

Corn Cob Grit

- Major advantages
- Non-toxic blast cleaning media—causes no health or environmental hazards
- Dust-free corn cob products—aspirated
- Long-lasting; re-usable
- Reduces cost of finishing operations
- Preserves micro finishes

Physical characteristics

Specific gravity	:	1.2
Moh hardness	:	4.5
Shape	:	Angular, multi-faceted

Sizes Available:

6/8, 8/14, 10/14, 14/20, 20/40, 40/60, 40/80, 40 & Finer and, 80 & Finer

1.15Walnut Shells Grit

Walnut Shell Grit is a hard and fibrous product made from crushed Walnut Shell in accordance with international trade standard and it is the most soft type abrasive in existence days. It has excellent durability and is now widely used to blast clean and polish soft metals, glass, fiber glass, wood, plastic and stone. It works as a deburring and deflashing product for molding, casting and electrical parts. It is an efficient soft abrasive when used to tumble and polish gun casings, jewellery and metal parts and can also be used to prepare surfaces and equipment or wall for painting. The shells are ground into three grades of grits:-

- a. The **Coarse Grits** are used for blast cleaning purpose, components can be cleaned without marking or etching the component's blasted surfaces and also used in landscape mulching, **Shape of every grains of our product is angular not in round, that gives best and fast results then others, and can reuse more time.**
- b. The **Medium Grits** are used for cleaning machinery such as sprayers and grape-harvesting equipment; the military also uses it to scour battleships and jet engines.
- c. The **Finest Grade** is reserved for women's cosmetics scrub and skin care.

Major industrial applications :

A BLAST CLEANING MEDIA:

- For removal of paint, flash, burrs and other flaws in plastic, aluminum and zinc die casting and electronics industries.
- As a replacement for paint removal, graffiti removal and general cleaning in restoration of buildings, bridges, and outdoor statuary.
- In chemical and oil industry to clean out the oily surface.
- For aircraft engine cleanout.
- For cleaning steam turbines.

SIZES AVAILABLE :

Group Sizes : 4-6, 8-12, 12-16, 12-20, 20-30, 30-40, 40-60, 60-80

Single Mesh Sizes : 6, 8, 10, 12, 14, 16, 18, 20, 24, 30, 36, 46, 60, 80, 100, 120

Physical characteristics :

Specific gravity - 1.2 - 1.4

Hardness - 2.5 - 3.0 on MOHS scale.

PH - 7.5

1.16 Silicon Carbide

Silicon Carbide is an extremely hard, sharp and aggressive abrasive. It is formed inside electric furnaces, at a temperature of 2200°C, and produced from quartz and petroleum coke. It is chemically stable, has high resistance to oxidation and is also unaffected by acids and will only react to alkali at very high temperatures. As an abrasive, it is surpassed in hardness only by diamond, cubic boron nitride and boron carbide.

Being so hard, HardCut™ is extremely fast cutting and can be used to clean and etch very hard surfaces that would otherwise not be possible with other softer abrasives. Products manufactured from Tungsten Carbide may also be cleaned with HardCut™. HardCut™ is harder and sharper than Aluminium Oxide but is more friable, therefore prone to breaking down at a faster rate.

HardCut™ is available in 2 types,

- **Type G**

Type G is the purest form of commercially available Silicon Carbide. It is used in many applications ranging from, blast cleaning and glass etching, manufacture of bonded and coated abrasives through to refractory and ceramic applications. It is most suited for surface finishing non-ferrous materials such as cemented carbides, optical glass and ceramics.

- **Type B.**

Type B is used for surface finishing applications requiring a fast cutting action without leaving any ferrous residue on the blast surface. It is also extensively used in the manufacture of coated & bonded abrasives (e.g. sand paper, grinding stones and wheels), in refractory products and for glass etching.



SYNCO WIRES

2.1 Alloy 625 Wire

Alloy 625 is a non magnetic, corrosion and oxidation resistant, nickel based alloy. Excellent corrosion resistance. * Wire spray coating can withstand many corrosive environments. In alkaline, salt water, fresh water, and neutral salts and in air almost no attack occurs. * Provides resistance to oxidising environments

2.2 Babbitt Wire

Babbitt Wire of (70, 30)/ (80, 20) in 1.6mm/2mm available. Automatic Wire Flame Spray Equipment is used to apply this coating. Particularly suitable for coating on capacitors, resistors, panels etc. * Produces dense coatings which are suitable for high speed and heavy duty bearings. * Bearing Reclamation.

2.3 Molybdenum Wire 99% Purity

It is frequently used as a bond coat on parts such as Synchro Rings/industrial Gears/Clutch Parts etc due to its very good bond strength between the surface of base metal and sprayed metal. Though molybdenum is a costly wire, the sprayed thickness required for excellent bonding is only 0.015". It has low friction characteristics and is wear resistant. Available in 2mm and 3.17mm sizes.

2.4 Monel 400*

High strength and toughness from cryogenic temperatures to 1800 degrees F (980 degrees C), good oxidation resistance, exceptional fatigue strength, and good corrosion resistance. * Chemical and pollution control equipment, ash pit seals, nuclear reactors, marine equipment, ducting, thrust reverser assemblies, fuel nozzles, afterburners, spray bars. * Excellent finishing

2.5 NiAl 95/5*

Dimensional Restoration. * Good Bond Strength. * Oxidation and Abrasion Resistant. * Self Bonding Material. * Excellent Bonding. Available in 1.6mm

2.6 Pure Zinc Wire*

Steel Protection against corrosion in aggressive atmospheric conditions. * Electrical conductivity. * Available in 1.6mm and 3.12mm. This wire can be sprayed using Synco Flame Spray System

2.7 SS 316L

Produces corrosion resistant work hardenable finish. Excellent machinability. * Dimensional Restoration * Good Corrosion Resistance

2.8 SS 420

Coatings are highly wear resistant and show good corrosion resistance and antifrictional qualities, final machining by wet grinding. Available in 1/8" and 1, 6 mm, other diameter on request. C Mn Si Cr Fe <.5 1 <1 13-14 bal

2.9 SS 80

High carbon steel for reclamation of machine element parts requiring hard surfaces. Finish by wet grinding Available in 1/8" and 1, 6 mm, other diameter on request. C Mn Si Fe .8 .55 .21 bal

2.10 SS440

Coatings are highly wear resistant and show very good corrosion resistance. This is recommended for applications that require good wear resistance and very good corrosion qualities. C Mn Si Cr Ni Mo Fe .44 <1 <117, 5 11, 2 bal

2.11 SIL 8016(Stainless Steel Wire)

High carbon steel for reclamation of machine element parts requiring hard surfaces. Finish by wet grinding Available in 1/8" and 1, 6 mm, other diameter on request. C Mn Si Fe .8 .55 .21 bal

2.12 SS 440 Wire

Coatings are highly wear resistant and show very good corrosion resistance. This is recommended for applications that require good wear resistance and very good corrosion qualities. C Mn Si Cr Ni Mo Fe .44 <1 <1 17, 5 1 1, 2 bal.

2.13 Ni Al 80/20 Wire

Produces coatings which resist corrosive gases and oxidation in temperatures up to 980 Deg C. Used as bond coat for ceramic materials. Coatings are machine able.

2.14 NiCrAl

Cr 20%, Al 7% and Ni Bal

Resistant to Oxidation and corrosion at high temperature. Undercoat for ceramics topcoat. Recommended for salvage and build-up of miss machined parts or worn machine parts.

2.15 NiAlMo

Mo 5.0%, Al 5.5% Ni bal

Recommended for salvage and build-up of both machinable and grindable carbon steels. Good resistance against wear and particles. Used for high strength and low shrink coatings.

2.16 Synco Alcr3 Wire

Fe-Cr-Al

It is an Arc spray wire providing very dense coatings and high bonding strength, a wire for multipurpose arc spray applications. It can be used as a bonding layer as well as final (single) coating. It is highly corrosion and heat resistant (+1000 Deg C).

Coatings can be machined. Tensile Strength 600-800 Mpa. Melting Point 1500 Deg C.

2.17 Synco S23 Wire

This is a solid wire used for Arc Spray applications. Coatings are highly wear and corrosion resistant. Good antifrictional properties. An all purpose stainless steel coating wire. Finished by wet grinding only. For bearing applications and general wear applications this is a universal spraying wire (bond coating required)

Tensile strength- 32-33 Mpa. Melting Point-1500 Deg C Hardness 40-43 Rc.

Other Nickel Wires available with us:

- 1) Synco 60-10 Ni Cr Fe.
- 2) Synco 80-20 Ni-Cr.
- 3) Monel Ni Mo.
- 4) Synco 82 Hastelloy Type.

Other Stainless Steel Wires

- 1) Synco S33-Fe-17Cr
- 2) Synco S53 FeCrNiMn
- 3) Synco S163 FeCrNiMo
- 4) Synco S 183 FeCrNiMoNbMn

Other Carbon Steel Wires

- 1) Synco S203 FeMn
- 2) Synco S253 Fe-Cr
- 3) Synco 5003 Fe-C-Cr
- 4) Synco 6003 Fe-C-Cr-Mo-W

