



When Glass Meets Metal

THE GLASS BEAD ADVANTAGE

- Environmentally friendlier than acid & chemical treatments
 - Lower disposal & maintenance costs
 - Soda Lime glass does not release toxins (no free silica)
 - Will not penetrate, contaminate, or leave residue
 - Cleans thoroughly without causing dimensional change to the base material
 - Leave even, spherical impressions on blasted part surface
 - Suitable for pressure, suction, wet and dry blasting equipment
 - Available in a full range of sizes
- Low breakdown rate



Glass Beads have proven time and again to be a reliable, cost effective, environmentally friendly, and versatile option to traditional medias in industrial blasting. Swarco supplies a complete range of bead sizes with consistent roundness and hardness for your cleaning, finishing, deburring or peening needs. Glass microspheres can be used equally well with dry, wet, pressure or suction blasting methods.

Swarco prides itself on product quality, flexibility and service.

Give us a call..... We want to be your partner when it comes to cleaning, finishing, deburring, and shot peening solutions.

PRODUCT APPLICATIONS

Swarco's glass beads are made of hardened spherical soda lime glass. They are ideal for de-scaling, cleaning, deburring, surface treatment and finishing, surface extension, and the peening of metal components.

CLEANING with glass beads removes oxide layers and residues from working material without damaging the surface thus restoring part performance lost due to the buildup of harmful heat scale and carbon deposits. Cleaning of metal surfaces prior to painting or plating ensure better performance of the coatings.

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|-------------------------------|------------|------------------------|
| ● Automotive & Aircraft Parts | ● Molds | ● Stampings |
| ● Castings | ● Pipes | ● Weldments |
| ● Dies, Plates | ● Statuary | ● Tubes, Trays, & Vats |

DEBURRING frees metal parts and tools of loose burrs, unwanted edges and nicks which, if left untreated, can cause injury or damage to machine and operator. Common applications of the glass bead deburring medium include:

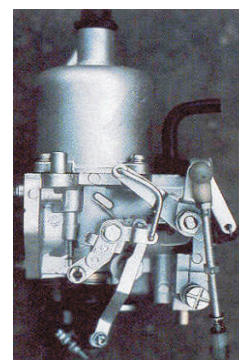
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|-----------------|---------|-----------------|-----------|
| ● Castings | ● Files | ● Drills | ● Mills |
| ● Cutting tools | ● Gears | ● Machine Parts | ● Threads |
| ● Dies | ● Jigs | ● Punches | ● Tools |

SURFACE TREATMENT AND FINISHING with glass beads is a very efficient way to blend surface defects, improve sealing, and appearance (matted or textured finishes) of all types of molds, deep draw dies and other parts with complicated shapes while improving corrosion resistance and lubrication of moving parts.

SURFACE EXTENSION prepares flat surface areas for galvanization, enameling, and lacquering without further chemical treatment. The metallic purity and the structural extension of the treated areas allow for improved adhesion and bonding between the surface and coating material.

- | | |
|--|-------------------------|
| ● Aluminum Castings | ● Medical Equipment |
| ● Food Processing Equipment & Cookware | ● Stainless Steel Parts |

PEENING with glass beads is particularly effective where a high notch sensitivity exists as a result of flexional demands, e.g. With spring, crankshafts, gears, etc. Wet blasting with fine glass beads will also expose cracks and fracture in metals as a fine dark line where they may otherwise have gone unnoticed.



SPECIFICATIONS:

Soda Lime Glass	No free silica
Specific Gravity	2.45 to 2.50 g/cm ³
Bulk Weight	1.5 kg/l
Hardness (Mohs)	5.5
Toxicity	None
Color	Clear / Colorless
Configuration	Spherical
Contamination	None
Roundness	65 to 95%



CHEMICAL COMPOSITION:	SiO ₂	min.	65%
	Al ₂ O ₃	0.5 to	2.0%
	Fe ₂ O ₃	max.	.15%
	MgO	min.	2.5%
	CaO	min.	8%
	Na ₂ O	min.	14%
	Other	max.	2%

QUALITY AND TECHNICAL SUPPORT:

Efficient results are best achieved through quality media and proper operating procedures and methods. Accurate size distribution, consistent grain sizes, high percentage of roundness, minimal air inclusions and irregular particles are the qualities you need in glass media.

Blasting pressure, distance, angle, base material, discharge losses, time cycles, blast equipment are equally important in improving efficiency and ensuring quality of work. Swarco not only offers quality media, we provide the technical support you need to improve quality and lower costs.

GRADATION SPECIFICATIONS

MIL SPEC G-9954A

U.S. Std. Mesh/ Screen	Microns	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7	Size 8	Size 9	Size 10	Size 11	Size 12	Size 13
		90% Rds	90% Rds	65% Rds	70% Rds	70% Rds	80% Rds	80% Rds	80% Rds	80% Rds	90% Rds	90% Rds	90% Rds	95% Rds
10	2000	100												
12	1700	95-100	100											
14	1400	0-15	95-100	100										
16	1180													
18	1000													
20	850	0-5	0-15	95-100	100									
25	710													
30	600		0-5	0-15	95-100	100								
35	500													
40	425			0-5	0-15	95-100	100							
45	355													
50	300				0-5	0-15	95-100	100						
60	250					0-5		95-100	100					
70	212						0-15		95-100	100				
80	180						0-5	0-15		95-100	100			
100	150						0-5	0-15			95-100	100		
120	125							0-5	0-15			95-100	100	
140	106								0-5				95-100	100
170	90										0-15			95-100
200	75										0-5			
230	63											0-15		
270	53												0-15	
325	45												0-5	0-15
400	38													0-5

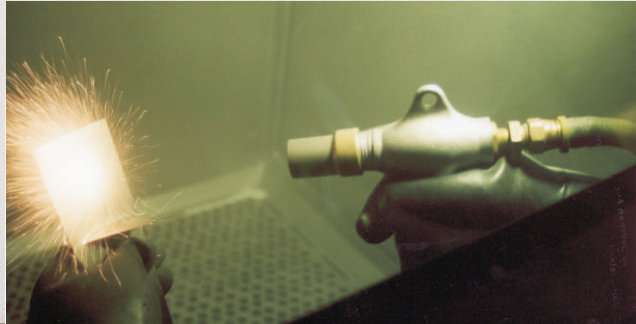
SAE AMS 2431/6A

U.S. Std. Mesh/ Screen	Microns	AGB-200	AGB-170	AGB-140	AGB-100	AGB-70	AGB-50	AGB-35	AGB-30	AGB-25	AGB-18	AGB-15	AGB-12	AGB-9	AGB-6
		80% Rds	80% Rds	80% Rds	65% Rds	65% Rds	70% Rds	70% Rds	70% Rds	80% Rds	80% Rds	80% Rds	85% Rds	90% Rds	90% Rds
7	2800	100													
8	2360	95-100	100												
10	200	0-10	95-100	100											
12	1700		0-10	95-100											
14	1400			0-10	100										
16	1180	0-3			95-100										
18	1000		0-3		0-10	100									
20	850			0-3		95-100									
25	710					0-10	100								
30	600				0-3		95-100								
35	500						0-10	100							
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200	75												0-3		95-100
230	63														0-10
270	53													0-3	
325	45														
400	38														0-3

NOTE:

- Designation number is the mean shot diameter in microns divided by 10.
- % Rounds is % of "true speres" defined as a spheriod with an aspect ratio (ration of maximum to minimum diameter) of 1.2:1.
- Prefix "AGB" denotes glass peening shot to AMS 2431/6.

VERIFICATIONS / SCREENING: Sieve sizes and standards according to A.S.T.M. Norms (ASTM-D-1155-53)



With more than 30 years experience in the glass bead industry, the Swarco Group is a trusted partner for all your blasting needs.

Our success is closely linked to the quality of our products. SWARCO's glass beads are subject to a strict quality management system and our qualified and motivated personnel offer competent and friendly customer service including on-site technical support.



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Swarco Bead Facility

WARRANTY: The following is made in lieu of all warranties, expressed or implied: Seller's and manufacturer's only obligation shall be to replace such quantity of the product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss, or damage, direct or consequential, arising from the use, or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability, whatsoever, in connection therewith. The foregoing may not be changed except by written agreement signed by an officer of the manufacturer.