SWARCO Indusferica

SWARCOBLAST

EXCELLENCE IN SURFACE FINISHING

CONTENTS

07 SWARCOBLAST GLASS BLASTING BEADS

1.1 APPLICATIONS

SWARCOBLAST glass blasting beads and glass blasting granulate are non-metallic fine blasting media made from hardened soda-lime glass. In injection and pressure blasting processes for surface treatment, they reliably process metals, cast parts, wood and even 3D-printed components. Independent testing ensures that all raw materials are free from heavy metals.

The broad product portfolio with precisely defined particle-size distributions and narrow tolerance ranges guarantees consistent quality, maximum precision and long service life. SWARCO Indusferica relies on regional, resource-conscious production in Europe, high delivery reliability and personalised customer support.

METAL

WOOD

3D PRINTING

GLASS BEADS WITH A SMALL CARBON FOOTPRINT

At a time when sustainability and environmental protection are gaining importance, companies are challenged to develop innovative solutions that enhance product performance while reducing environmental impact. SWARCO Indusferica demonstrates how this can be achieved – with innovative glass beads for specialised industrial applications.

CRADLE-TO-GATE (CTG)

SCOPE 1–3

SWARCOFORCE*
SWARCOBLAST*

1.14
kg CO_2e/kg

*value only applies to SWARCOFORCE glass filler beads & SWARCOBLAST glass blasting beads

1.2 AREAS OF USE

SWARCOBLAST glass blasting beads stand out for their wide range of applications in surface technology.

CLEANING

Used for desanding and the gentle removal of residues, coatings and weld marks – preparing surfaces perfectly for subsequent coating processes.

FINISHING

In finishing applications, blasting beads are used for smoothing, lapping and polishing – reducing surface roughness, creating matt or satin finishes, and producing a homogeneous appearance that eliminates machining marks and highlights imperfections.

COMPACTING

Blasting with glass beads increases surface hardness, dimensional stability and fatigue strength. At the same time, it improves lubricant film adhesion, reduces notch sensitivity and helps prevent stress corrosion cracking. Processes such as shot peening, precise alignment and shaping, benefit particularly from these properties.

DEBURRING

SWARCOBLAST glass blasting beads also demonstrate their strengths in deburring. They reliably remove unwanted burrs created during stamping, milling or turning – delivering precise workpieces with a flawless surface finish.

1.3 TECHNICAL DATA

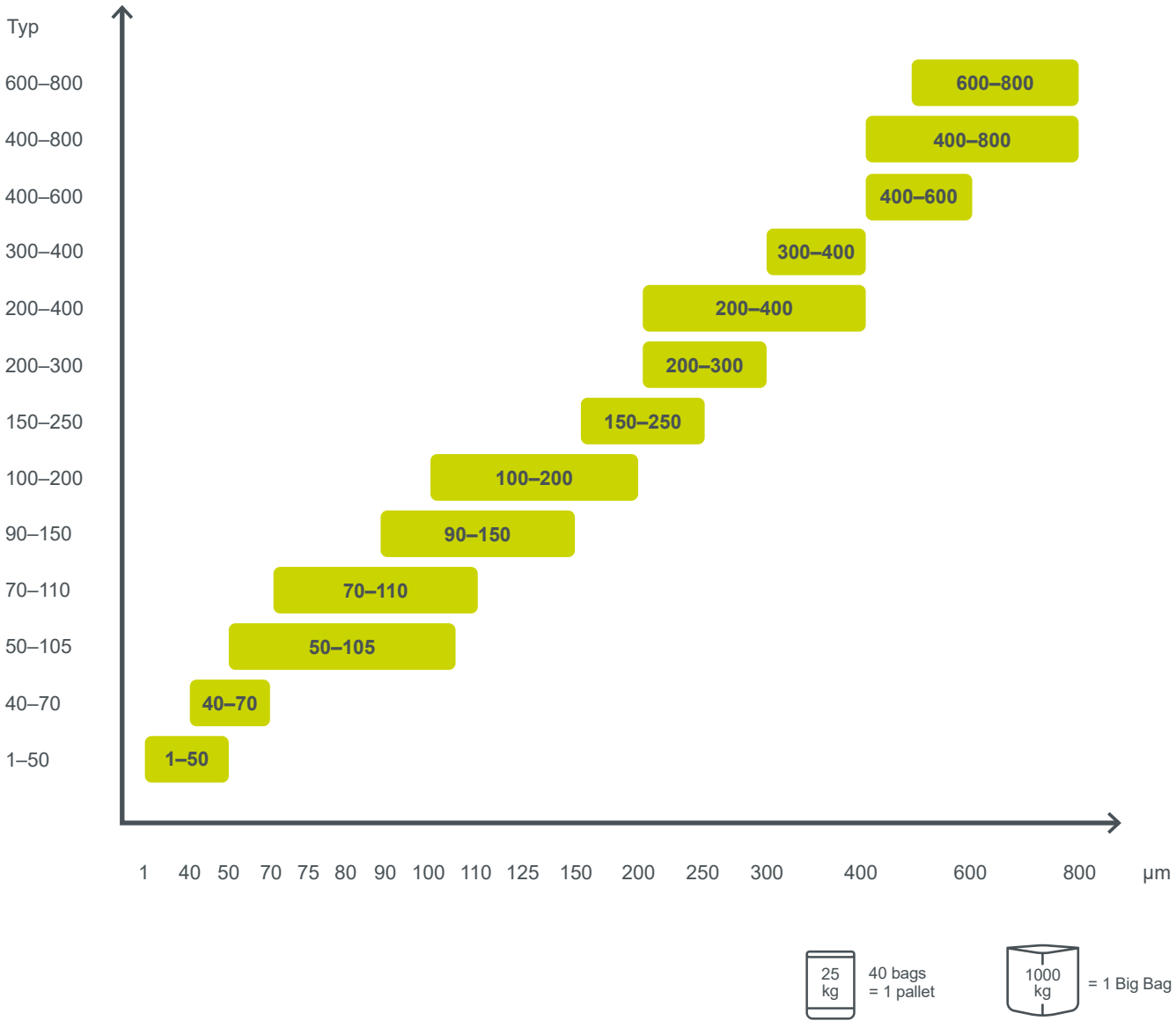
2.5 g/cm³	1.5 g/cm³	80 %
Specific density	Bulk density	Roundness
6–7	46–58	645
Mohs hardness	Rockwell hardness	Vickers hardness

Due to production-related factors, traces of foreign matter, additives and oversize particles may be present up to a maximum of 0.1 wt%.
Fines or undersized fractions (unless otherwise specified in the grading curve) may be present up to 0.5 wt%.

TECHNICAL DATA SHEETS
Scan the QR code to discover more

1.4 SIEVINGS

SWARCO Indusferica is your expert partner for customised solutions involving the industrial use of micro glass beads as blasting media. A broad range of particle size distributions is available. The production process ensures tight grading curves and consistent quality. Additional customised gradings can be developed on request.



1.5 CHEMICAL COMPOSITION

Elements connected by a solid line represent covalent chemical bonds, while unconnected elements indicate ionic bonds. The depicted chemical composition corresponds to the typical glass chemistry of soda-lime glass (A-glass).

For applications with specific technical requirements, alternative glass types – such as alumino-borosilicate glass (E-glass) or barium titanate glass – are available upon request.

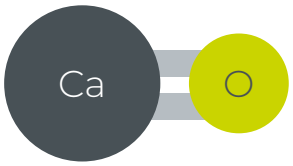
SiO_2

65.0–75.0 %

Na_2O

10.0–20.0 %

CaO

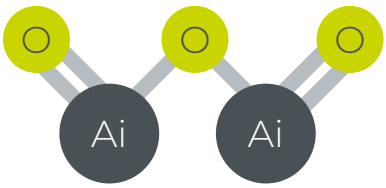


5.0–15.0 %

MgO

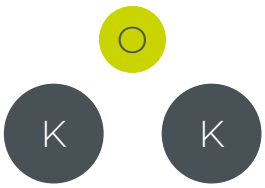
0–10.0 %

Al_2O_3



0–10.0 %

K_2O

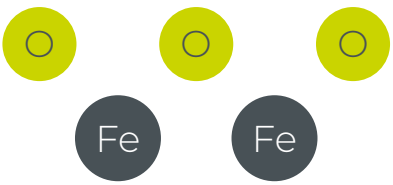


0–3.0 %

BaO

0–3.0 %

Fe_2O_3



0–3.0 %

02

SWARCOBLAST GLASS BLASTING GRANULATE

2.1 APPLICATIONS

SWARCOBLAST glass blasting granulate is a non-metallic, mineral, fine blasting medium produced by crushing soda-lime glass and subsequently sieving it into precisely defined fractions.

The granulate has proven particularly effective wherever media loss during blasting is unavoidable. It is ideally suited for gentle derusting, descaling and deburring of metallic materials and also offers advantages in wood processing. As a reusable blasting medium, it ensures efficient and resource-conscious application.

METAL

WOOD

STONE & CONCRETE

2.2 AREAS OF USE

SWARCOBLAST glass blasting granulate offers a wide range of applications in surface technology.

CLEANING

Ideal for desanding and the thorough removal of residues, old coatings as well as weld and solder marks. At the same time, it reliably prepares surfaces for subsequent coating processes.

FINISHING

The granulate creates a uniform surface structure – for example, through matting, satin finishing or the removal of machining marks. The result is a homogeneous, functional and visually appealing surface finish.

COMPACTING

Blasting with glass granulate enables targeted surface hardening, improved dimensional accuracy and increased fatigue strength. Processes such as shot peening, straightening and forming particularly benefit from these properties.

DEBURRING

SWARCOBLAST glass blasting granulate also demonstrates its strengths in deburring. It reliably removes unwanted burrs created during stamping, milling or turning – delivering components with clean, precise surfaces.

2.3 TECHNICAL DATA

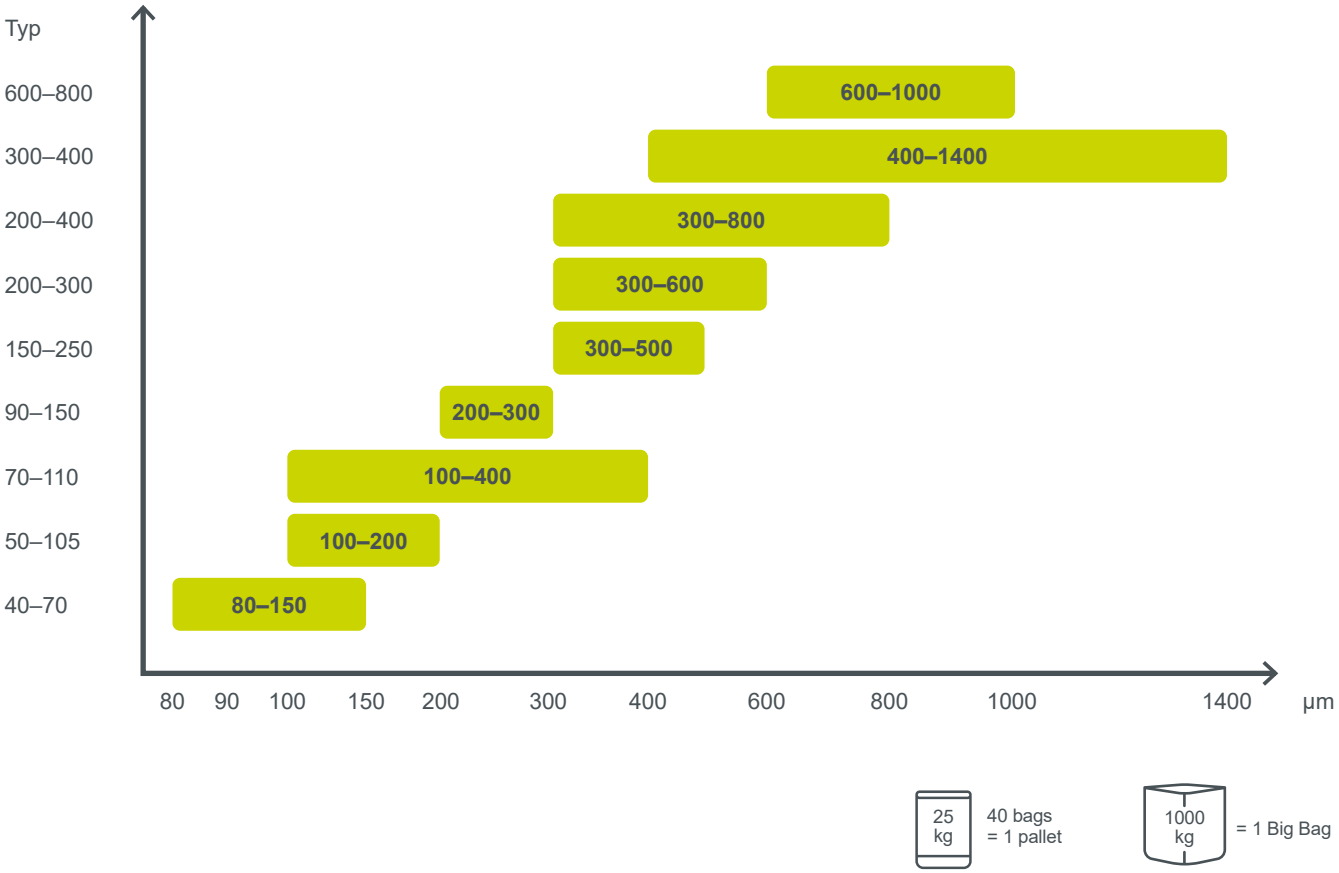
2.5 g/cm³	1.1–1.4 g/cm³	80 %
Specific density	Bulk density	Roundness
6–7	46–58	645
Mohs hardness	Rockwell hardness	Vickers hardness

Due to production-related factors, traces of foreign matter, additives and oversize particles may be present up to a maximum of 0.1 wt%. Fines or undersized fractions (unless otherwise specified in the grading curve) may be present up to 0.5 wt%.

TECHNICAL DATA SHEETS
Scan the QR code to discover more

2.4 SIEVINGS

SWARCO Indusferica is your expert partner for customised solutions involving the industrial use of micro glass beads as blasting granulate. A broad range of particle size distributions is available. The production process ensures tight grading curves and consistent quality. Additional customised gradings can be developed on request.



2.5 CHEMICAL COMPOSITION

Elements connected by a solid line represent covalent chemical bonds, while unconnected elements indicate ionic bonds. The depicted chemical composition corresponds to the typical glass chemistry of soda-lime glass (A-glass).

For applications with specific technical requirements, alternative glass types – such as alumino-borosilicate glass (E-glass) or barium titanate glass – are available upon request.

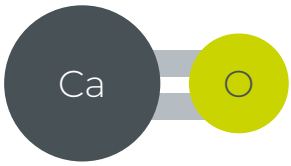
SiO_2

65.0–75.0 %

Na_2O

10.0–20.0 %

CaO

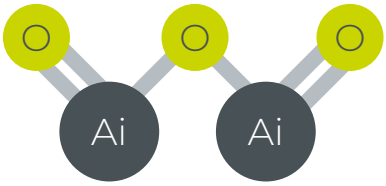


5.0–15.0 %

MgO

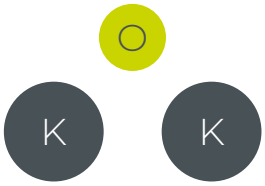
0–10.0 %

Al_2O_3



0–10.0 %

K_2O

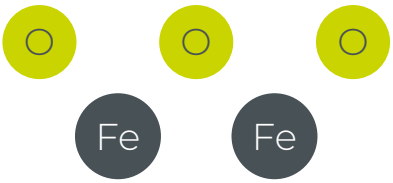


0–3.0 %

BaO

0–3.0 %

Fe_2O_3



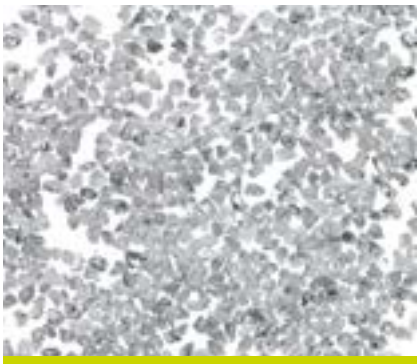
0–3.0 %

03 OTHER BLASTING MEDIA

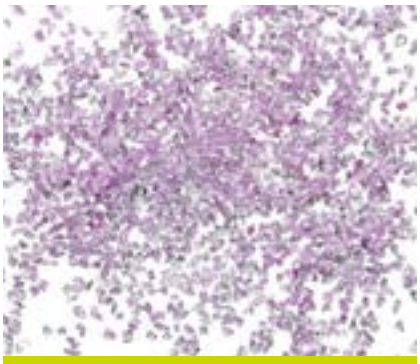
3.1 VARIETY FOR EVERY APPLICATION

In addition to glass blasting beads and glass blasting granulate, SWARCOBLAST offers a comprehensive range of specialised blasting media – from corundum formulations to organic and soft media as well as hybrid granulates. Each product is precisely tailored to specific requirements and complements the portfolio for optimal surface treatment.

NORMAL CORUNDUM



HIGH-GRADE CORUNDUM WHITE



HIGH-GRADE CORUNDUM PINK

BLASTING CORUNDUM

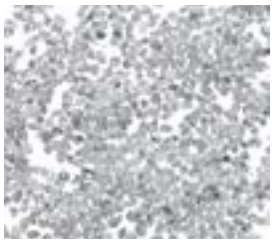
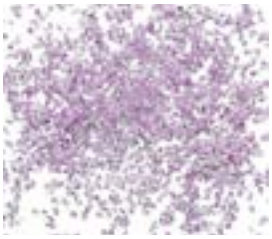
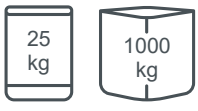
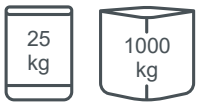
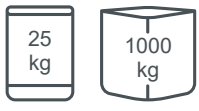
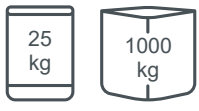
CRUSHED GRINDING WHEELS

POLYAMIDE PLASTIC GRANULATE

VEST-AIR-FIN PLASTIC GRANULATE

CORN COB GRANULATE

WALNUT SHELL GRANULATE

	Normal Corundum	High-Grade Corundum White	High-Grade Corundum Pink	Blasting Corundum
Products at a glance				
Material	Aluminium oxide	Aluminium oxide	Aluminium oxide	Aluminium oxide/ Ferrosilicon
Characteristics	Sharp-edged, tough, reusable blasting medium	Sharp-edged, very hard, reusable blasting medium	Sharp-edged, very hard, high-cutting-performance medium	Blasting medium for cleaning heavily contaminated surfaces
Process	Pressure blasting Injection blasting	Pressure blasting Injection blasting	Pressure blasting Injection blasting	Pressure blasting Injection blasting
Shape	Angular	Angular	Angular	Angular
Roughening	×	×	×	×
Deburring	×	×	×	×
Derusting	×	×	×	×
Deoxidising	×	×	×	×
Descaling	×	×	×	×
Smoothing/ Polishing				
Vibratory finishing				
Matting	×	×	×	×
Cleaning	×	×	×	×
Structuring				
Drying				
Specific density g/cm³	3.9–4.1	3.9–4.1	3.9–4.1	5.0–5.5
Bulk density kg/l	1.4–2.1	1.4–1.8	1.4–1.8	2.0–2.5
Hardness	Mohs hardness 9	Mohs hardness 9	Mohs hardness 9	Mohs hardness 9
Sievings	1–2000 µm	1–2000 µm	17–2000 µm	0–3000 µm
Packaging				

The information provided does not constitute a guarantee of specific properties.
It is the user's sole responsibility to verify the product's suitability for the intended application before use.

Crushed Grinding Wheels	Polyamide Plastic Granulate	Vest-Air-Fin Plastic Granulate	Corn Cob Granulate	Walnut Shell Granulate
				
Crushed grinding wheels and corundum dust	Polyamide 6	Thermoset/resins	Ground corn cob	Ground walnut shells
Sharp-edged	Non-abrasive, dust-free	Chemically inert, non-toxic, long service life; also available with antistatic additive	Extremely soft organic material, absorbs water and oils	Natural organic blasting medium, free from preservatives
Pressure blasting Injection blasting	Pressure blasting Injection blasting Wheel blasting	Pressure blasting Injection blasting	Pressure blasting Injection blasting Vibratory or barrel finishing	Pressure blasting Injection blasting
Angular	Cubic/Cylindrical	Angular	Angular	Angular
×				
×	×	×		×
×				
×		×		×
×				
			×	×
			×	×
×				
×		×	×	×
×				
			×	
3.8–4.0	1.14	1.5	0.4–0.6	1.0–1.2
1.5–1.8	0.7–0.8	0.7–0.8	0.7	0.7
Mohs hardness 9	Mohs hardness 2–3	Mohs hardness 3.5	Mohs hardness ca. 4.5	Mohs hardness ca. 2.5–3.5
44–2830 µm	0,5 × 0,5–2 × 2 mm	200–1200 µm	200–5000 µm	100–10000 µm
25 kg 1000 kg	25 kg	25 kg 1000 kg	25 kg	25 kg

IMPRINT

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For reasons of readability, a single gender form
may be used. This is done without any intent to
discriminate against other gender identities.
www.swarco-indusferica.com**

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Managing Directors: Andreas Illich, Konstantin Niederer

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EVERY DAY.

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SWARCO's products, systems and solutions contribute to greater road safety and intelligent traffic management in 80 countries worldwide.

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