GC
Green Silicon Carbide

C
Black Silicon Carbide

この写真はイメージです。This photograph is an image.

■GC

GCは高いSiC純度を誇る緑色炭化けい素研磨材です。六方晶のα型の結晶はダイヤモンドに次ぐ硬度を有するほか、化学的にも常温で非常に安定しています。したがって薬品等に侵されず、破砕により鋭い研削刃を自生し、優れた研磨力を発揮します。

GCは、水晶、フェライトの精密ラッピングやダイシングに、またSiインゴットの切断用ワイヤソーに、その他超硬金属や刃物類の加工から真鋳や銅合金等の軟質金属、樹脂類の加工にいたるまで幅広い研磨材料として使用されているだけでなく、超仕上用精密砥石の材料として最適です。また電気的に半導体の性質を持ち、熱伝導性が良く高温に耐えることから、ヒートシンク（放熱用部品）の材料にも使用されています。

■C

Cは黒色炭化けい素研磨材で、通称カーボランダムとも呼ばれています。GCと同じように電気抵抗炉で2000℃以上の高温で珪石とコークスを熱反応させて得られるα型の炭化けい素結晶から構成されています。GCと比較して純度や硬度はやや劣るものの、靭性は優っていると言われています。当社独自の製法から得られる製品は、安定した切刃と砥粒加工に最も適した粒度分布から構成され、優れた表面加工が可能です。Cは、研磨布紙や超仕上用精密砥石の材料のほか、鋳鉄、真鋳、銅、アルミニウム、石材、フォトマスク用硝子等の精密ラッピングに最適です。また、半導体結晶等の精密ホーニングやダイシング加工にも適しています。

■GC

GC, green silicon carbide, is a very high purity SiC lapping powder. The hexagonal α-type crystal is just below diamond in terms of hardness, and its chemical stability is excellent at room temperature. The result is a product with superior lapping and polishing capabilities, which is not affected by chemicals, and can spontaneously generate sharp grinding edges through fragmen-tation. GC is well suited for use as a lapping powder in a wide range of functions, including the precision lapping and dicing of crystal and ferrite, the slicing of Si ingot, and the processing of materials ranging from ultra hard metals and edged tools to soft metals such as brass and other copper alloys. But that's not all, GC is used in the processing of various resins as well. GC is also ideal for use in super finishing precision grindstones. As it possesses the electrical properties of a semiconductor, GC has good heat conductivity and has the ability to withstand high temperatures, making it useful as a material in fine ceramics.

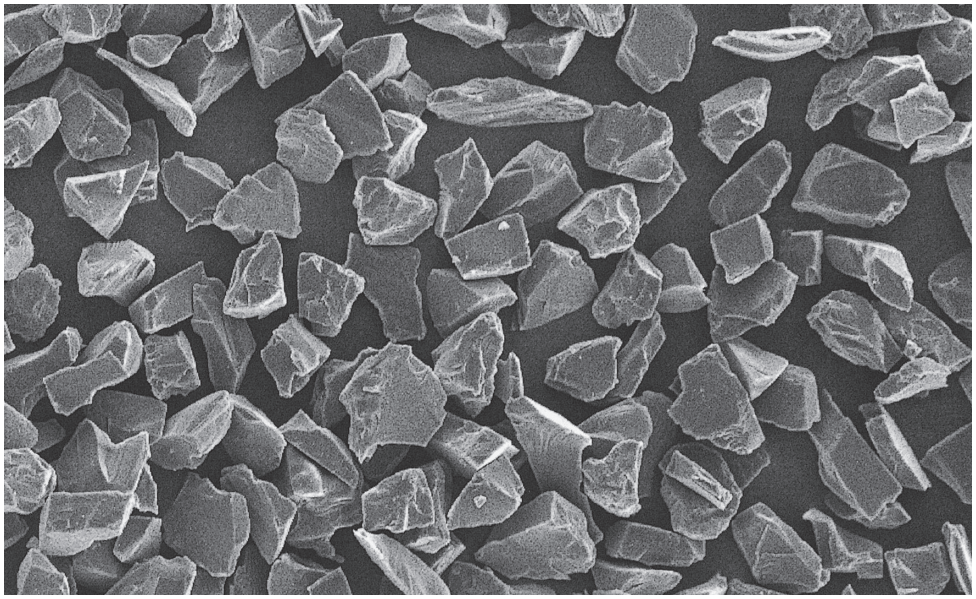
■C

C is a black silicon carbide lapping powder, commonly known as Carborundum. Like GC, this product is obtained by reacting silica and coke in an electric furnace at a temperature of more than 2000℃, resulting in a product with an α-type silicon carbide crystal configuration. Although in comparison with GC, C is slightly lower in purity and hardness, it does have excellent toughness. C is manufactured using this company's own unique production methods. Because of its stable cutting edges and its ideal particle size distribution, it is used for abrasive machining. The unique abrasive character of C makes it possible for superior lapping to be done on a work surface. C is ideal for use as a material of precision lapping polishing clothes and papers, and finishing precision grind-stones. In addition, it can also be used for precision lapping of cast iron, brass, copper, aluminum, stones, and glass for photomasks. It is also well suited for the precision honing and dicing process necessary in such products as semiconductor crystals.

H23.06

FUJIMI INCORPORATED

株式会社フジミインコーポレーテッド
本社：〒452-8502 愛知県清須市西枇杷島町地領2-1-1
TEL(052)503-8112　FAX(052)503-7734
FUJIMI INCORPORATED
1-1, Chiryo-2, Nishibiwajima-cho, Kiyosu, Aichi, 452-8502 Japan



GC#1000

標準粒度規格　Standard Specifications for Particle Size

粒度 Particle Size	粒度分布　Particle Distribution (μm)				包装　Packaging	
	最大粒子径 Maximum particle size	累積高さ3%点の粒子径 Particle size at 3% point	累積高さ50%点の粒子径 Particle size at 50% point	累積高さ94%点の粒子径 Particle size at 94% point	スタンドパック 正味重量(kg) Stand pack Net weight (kg)	紙袋入 正味重量(kg) Vinyl lined Net weight (kg)
＃　240	≦ 127	≦ 103	58.6± 3.0	≧40.0	5	20
＃　280	≦ 112	≦87.0	49.4± 3.0	≧33.0	5	20
＃　320	≦98.0	≦74.0	41.1± 2.5	≧27.0	5	20
＃　360	≦86.0	≦66.0	36.1± 2.0	≧23.0	5	20
＃　400	≦75.0	≦58.0	30.9± 2.0	≧20.0	5	20
＃　500	≦63.0	≦50.0	26.4± 2.0	≧16.0	5	20
＃　600	≦53.0	≦43.0	21.1± 1.5	≧13.0	5	20
＃　700	≦45.0	≦37.0	17.9± 1.3	≧11.0	5	20
＃　800	≦38.0	≦31.0	14.7± 1.0	≧9.00	5	20
＃ 1000	≦32.0	≦27.0	11.9± 1.0	≧7.00	5	20
＃ 1200	≦27.0	≦23.0	9.90±0.80	≧5.50	5	20
＃ 1500	≦23.0	≦20.0	8.40±0.60	≧4.50	5	20
＃ 2000	≦19.0	≦17.0	6.90±0.60	≧4.00	4	20
＃ 2500	≦16.0	≦14.0	5.60±0.50	≧3.00	4	20
＃ 3000	≦13.0	≦11.0	4.00±0.50	≧2.00	4	20
＃ 4000	≦11.0	≦8.00	3.00±0.40	≧1.30	4	20
＃ 6000	≦8.00	≦5.00	2.00±0.40	≧0.80	3	20
＃ 8000	≦6.00	≦3.50	1.20±0.30	≧0.60 ※(1)	3	15
＃10000			0.51～0.70		3	10
＃20000			0.50 ※(2)		2	
＃30000			0.32 ※(2)		2	

粒度測定方法は、#8000までは電気抵抗法、#10000は沈降天秤法、#20000,#30000はレーザー回折散乱法による。
Particle size is measured by Electrical sensing zone methods up to size #8000,by Sedimentation balance methods for #10000 and by Laser diffraction dispersion methods for #20000,#30000.
注(1):累積75%点の粒子径(dv-75値)
Note(1):Particle size at 75% point(dv-75 value)
注(2):代表値
Note(2):a Representative value
備考:C製品は#4000まで、GC製品は#30000まで製造しています。
Remark:Product C is produced up to size #4000, Product GC is produced up to size #30000.

品質規格　Quality Standard

種　類 Type of product	粒　度 Particle size	比　重 Specific Gravity	化学成分　Chemical composition (%)		
			SiC	C.F	Fe.s
GC	＃　240～＃ 3000	≧3.18	≧96.0	≦0.50	≦0.30
	＃ 4000～＃10000	≧3.16	≧92.0	≦2.00	≦0.30
	＃20000～＃30000	≧3.16	≧90.0	≦2.00	≦0.30
C	＃　240～＃ 4000	≧3.16	≧94.0	≦1.50	≦0.50