

Technical Data Sheet

Product Code	GC01004-F07P
Description	GraphCore™ 01 Graphene Nanoplatelets
Form	Powder
Issue Date	V1.0 - April 1, 2024

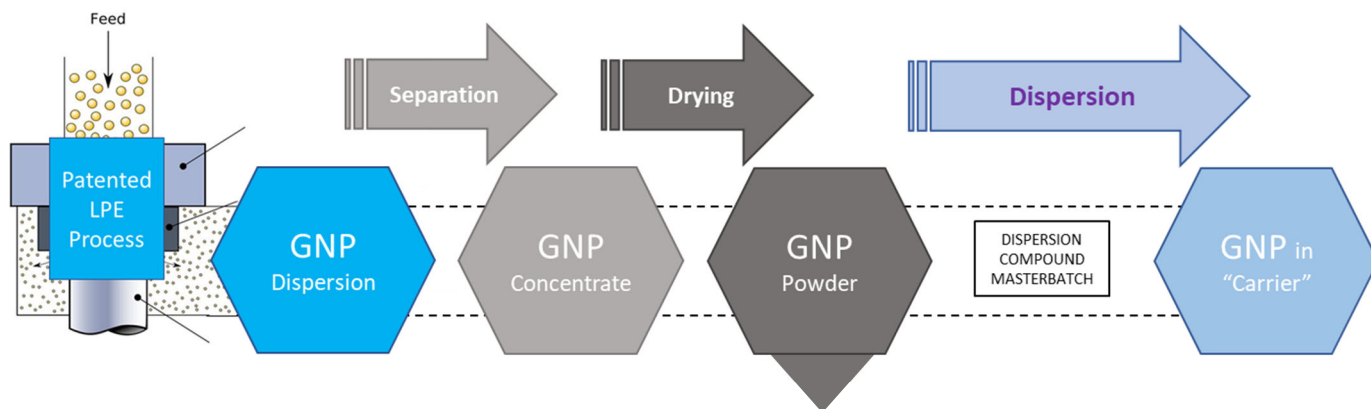
Black Swan Graphene Inc. (“Black Swan”) (TSX-V: SWAN) (OTCQB: BSWG) (Frankfurt: R96), is focused on the large-scale production and commercialization of patented high-performance and low-cost graphene products aimed at several industrial sectors, including concrete and polymers. Black Swan is a global leader in the development and supply of graphene nanoplatelets (GNP) for use in new and emerging technologies.

GC1004 [GC01004-F07P] is a member of the **GraphCore™ 01** Family of graphene nanoplatelets. It is supplied in powder form. The product is manufactured using patented liquid phase exfoliation process incorporating ~3% wt non-ionic surface agent.

Previous versions of the product have been supplied as

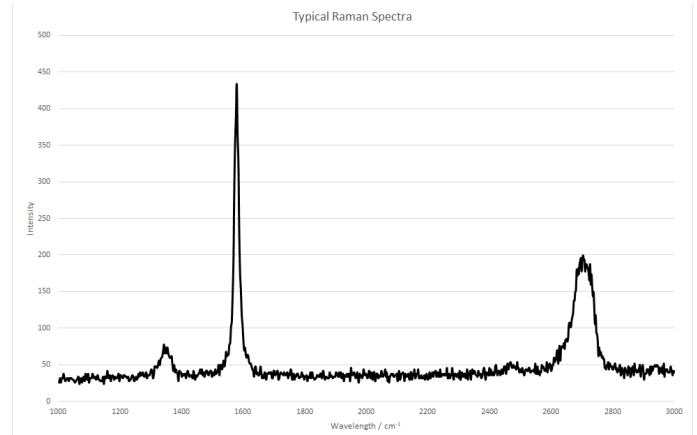
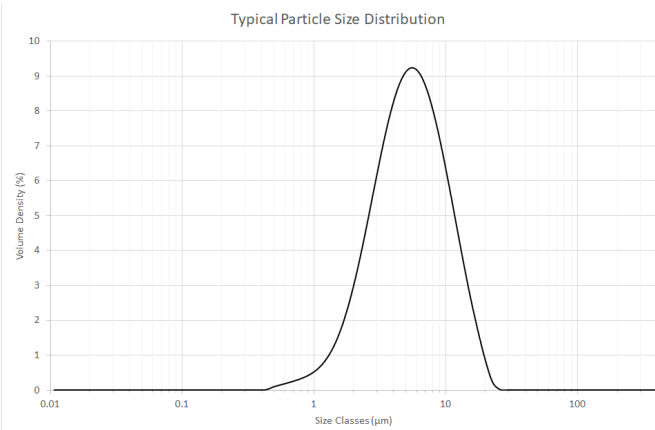
- R&D Material — GCR104-F07P
- Pilot Product — GCP104-F07P

The ISO-standard manufacturing process uses a carefully selected graphite being dispersed in a liquid medium (typically water) using our surface chemistry know-how. Our manufacturing process yields reliable quality GNPs in dispersion, powder or masterbatch forms.



POWDER	
Pilot product code	GC01004-F07P
Surface agent	Non-ionic
Form	Powder
Colour	Black

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Form	Powder



Properties	Typical Values	Guaranteed Values	Test method	
Particle Size Distribution	D_v(10)	1.8—2.2 µm	-	Laser light diffraction (water dispersion) (Internal method)
	D_v(50)	4.5—5.5 µm	3.5—6.5 µm	
	D_v(90)	8—12 µm	<15 µm	
	Mode	5.2—5.9 µm	4.5—6.5 µm	
Lateral Size Primary Particles	D_n(10)	0.35 µm	-	SEM (ISO/TS21356-1)
	D_n(50)	1.6 µm	-	
	D_n(90)	4.3 µm	-	
	Mode	0.7 µm	-	
Bulk Density	Untapped	0.16—0.21 g/cm ³	0.14—0.23 g/cm ³	Scott Volumeter (ISO 23145-2)
% of Surface Agent		2.8—3.2 % _{wt}	2.5—3.5 % _{wt}	TGA (internal method)
% of Residues		3.5—4.1 % _{wt}	<6.0 % _{wt}	TGA (Internal method)
Moisture content		<1 % _{wt}	<1 % _{wt}	TGA (Internal method)
Surface Agent Thermal Stability (in air)		Up to 200°C	-	TGA (internal method)

