

Technical Data Sheet

Product Code	GC01001-F07D
Description	GraphCore™ 01 Graphene Nanoplatelets
Form	Aqueous Dispersion
Issue Date	V1.0 - April 1, 2024

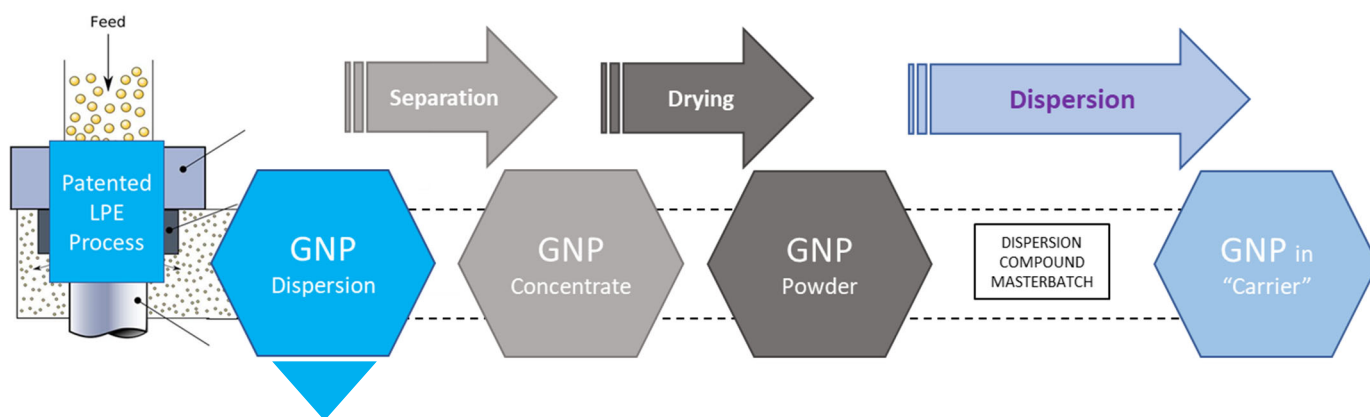
Black Swan Graphene Inc. (“Black Swan”) (TSX-V: SWAN) (OTCQB: BSWG) (Frankfurt: R96), is focused on the large-scale production and commercialization of patented high-performance and low-cost graphene products aimed at several industrial sectors, including concrete and polymers. Black Swan is a global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

GC1001 [GC01001-F07D] 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

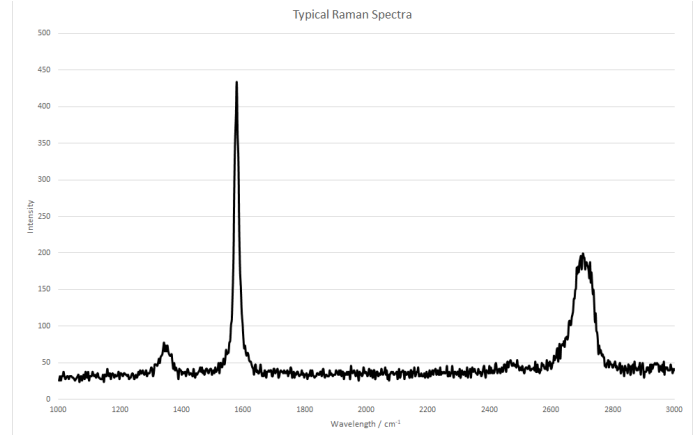
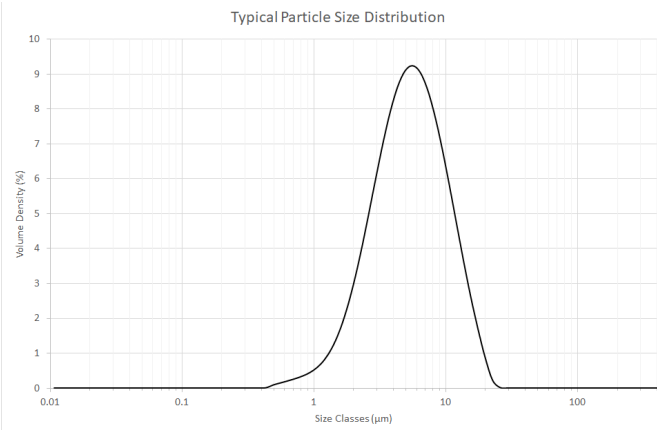
- R&D Material — GCR104-F07D
- Pilot Product — GCP104-F07D

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.



AQUEOUS DISPERSION	
Pilot product code	GC01001-F07D
Surface agent	Non-ionic
Form	Aqueous Dispersion
Colour	Black

Product Code	GC01001-F07D
Description	GraphCore™ 01 Graphene Nanoplatelets
Form	Powder



Properties	Typical Values	Guaranteed Values	Test method	
Particle Size Distribution	D _v (10)	1.7—1.9 µm	-	Laser light diffraction (water dispersion) (Internal method)
	D _v (50)	4—4.7 µm	-	
	D _v (90)	7.5—10 µm	<14 µm	
	Mode	4.5—5.5 µm	3.5—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	-	
Solids content	9—9.4 g/cm ³	8.5—10 g/cm ³	Dispersion Evaporation (internal method)	
% of Surface Agent	Based on solid content	2.8—3.2 % _{wt}	2.5—3.5 % _{wt}	TGA (internal method)
	Based on dispersion	0.2—0.24 % _{wt}		
% of Residues	Based on solid content	3.5—4.1 % _{wt}	<6.0 % _{wt}	TGA (Internal method)
pH		6.5—8.2		pH meter (Internal method)
Surface Agent Thermal Stability (in air)		Up to 200°C	-	TGA (internal method)

