

Technical Datasheet **CamGraph®** graphene powders.

CamGraph® is a range of graphene powders, derived from a catalyst- and surfactant-free microwave plasma synthesis process. The CamGraph® range consists of three grades of graphene: G1 has the lowest number of graphene layers (between 1 and 5 layers), G3 contains thicker graphene flakes (between 3 and 15 layers), and G2 is a highly purified, high-conductivity version of G3.

Typical Properties

		CamGraph®		
Form		Powder		
Colour		Black		
Odour		Odourless		
Formula		C		
Particle shape		Graphitic (sp ²)		
		G1	G2	G3
Classification		Very few layer	Multi layer	Multi layer
Carbon content⁸		≥98%	>99%	≥99%
# of graphene layers¹		3 ± 2	8 ± 5	9 ± 6
Flake thickness¹ (nm)		1.0 ± 0.7	2.7 ± 1.7	3.0 ± 2.0
Lateral size² (nm)		475 ± 75	400 ± 150	400 ± 150
Bulk density³ (g/L)		30 ± 5	185 ± 15	200 ± 20
Conductivity⁴ (S/m)		6090 ± 125	2000 ± 100	975 ± 75
Surface area^{5,6} (m²/g)		320 ± 20	240 ± 5	130 ± 5
Pore volume^{5,7} (cm³/g)		0.16	0.12	0.06

¹ As determined by STEM (n = 130)

² As determined by SEM (n = 1000)

³ May differ slightly due to compression of powder during shipping

⁴ 4-point-probe measurement on pellets (compressed under 10 bar for 20 minutes)

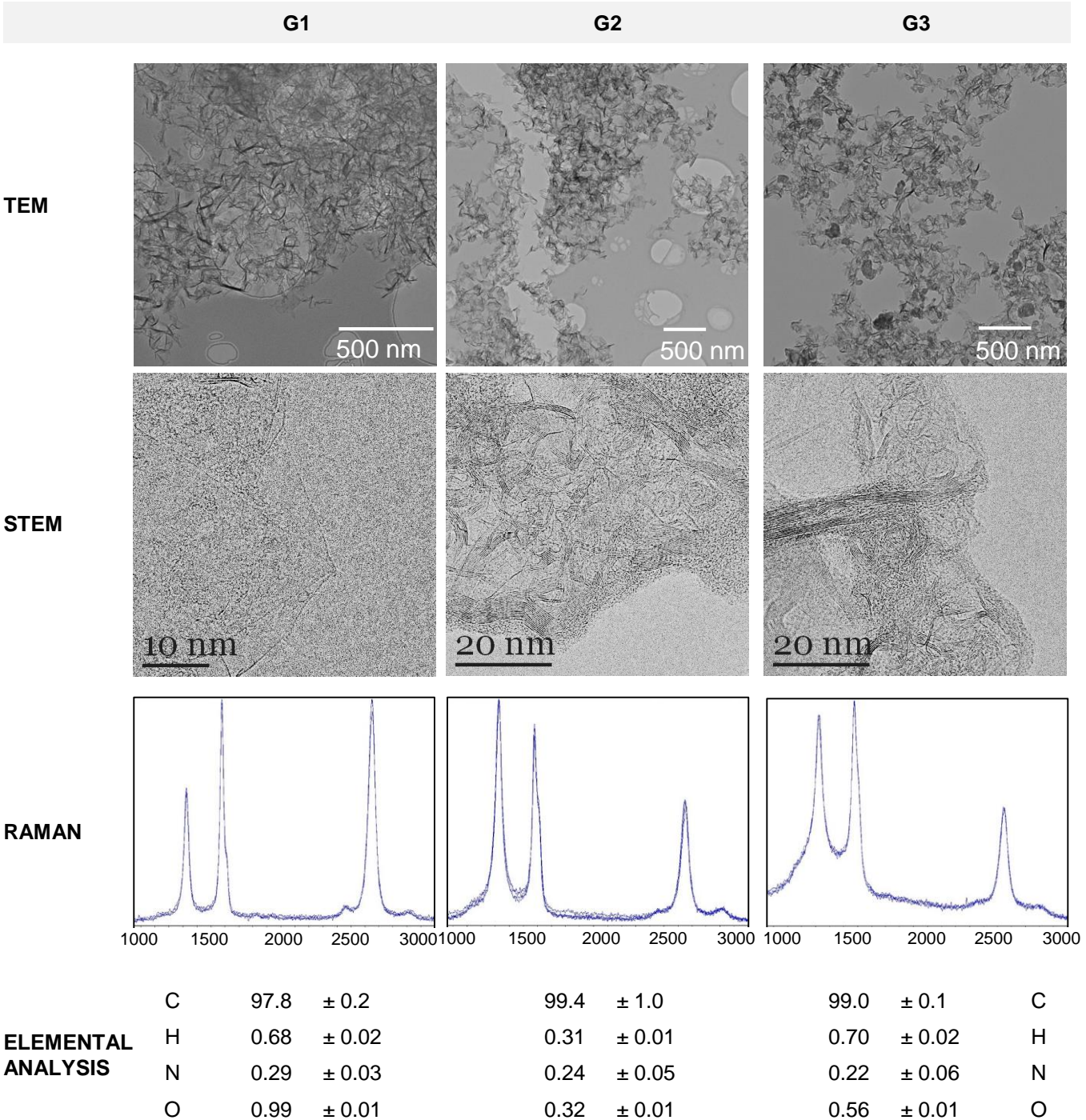
⁵ Nitrogen BET, P/P₀ = 0.3

⁶ For reference, graphite powder = 8.5 ± 0.5 m²/g

⁷ For reference, graphite powder = 0.005cm³/g

⁸ As determined by combustion elemental analysis (n = 6); oxygen content is determined by pyrolysis.

Representative Characterisation



The information contained in this datasheet is derived from analysis of a typical batch of each product. It is given for information purposes only, without guarantee.