**December 2025**

# PREMIUM MICRO-CRYSTALLINE GRAPHITE PRODUCTS

Sarytogan Graphite Limited (ASX listed, code SGA) is developing the Sarytogan Graphite Project in Central Kazakhstan. The nominal 60-year mine life (JORC Ore Reserve) consumes only 4% exceptionally high-grade and giant **229Mt @ 28.9% TGC** Mineral Resource. A positive Pre-Feasibility Study was announced on 12 August 2024 that selected 50,000 tpa of upstream flotation and three 6,000 tpa downstream thermal purification modules as the preferred flowsheet. With the support of major shareholder, the European Bank for Reconstruction and Development, a Definitive Feasibility Study is underway scheduled for completion in 2026.

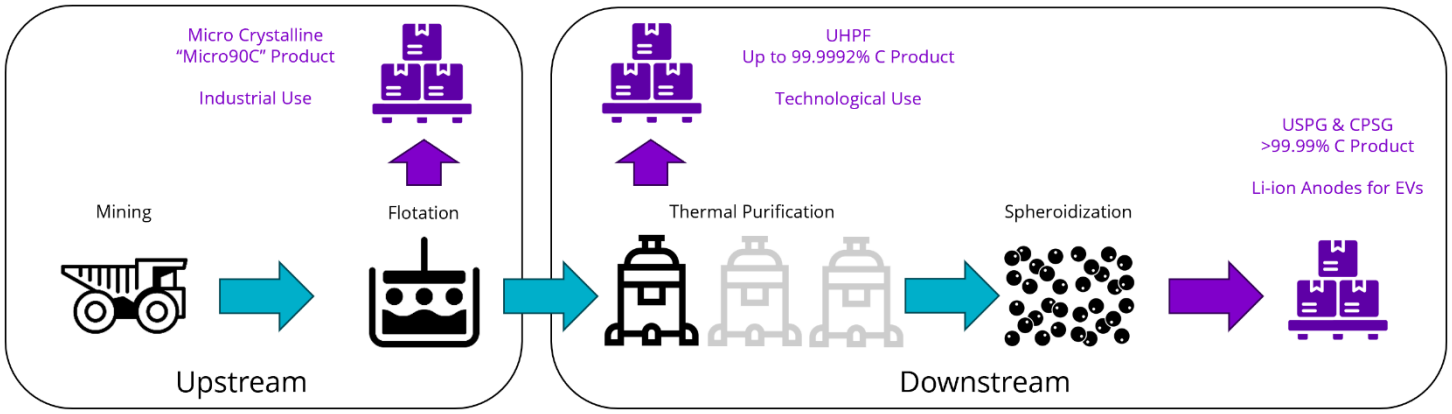


*Figure 1 - Sarytogan Graphite Schematic Flowsheet*

Sarytogan is seeking expressions of interest or memorandums of understanding for its three planned premium micro-crystalline graphite product categories (Table 1) and would welcome product qualifications, technical collaboration and/or strategic equity investment.

*Table 1 - Sarytogan proposed products, demonstrated performance*

| **Product Groups** | **MICRO90C** | **UHPF** | **USPG and CSPG** |
|---|---|---|---|
| Grade (% C) | 90% | Up to 99.9992% | >99.99% |
| Sizings (µm) | D90 15, 10 & 5 | D90 15, 10 & 5 | d50 20,15 & 10 |
| Uses | Traditional - Lubricants, Friction Products, Drilling Fluids, Recarburizer, Foundry etc. | Advanced – Alkaline, Lithium, and Lead Acid Batteries; Nuclear and Synthetic Diamonds etc. | Lithium-Ion Battery Anodes etc. |
| ASX Announcements Demonstrating Performance (click links) | 22 May 2024<br>28 October 2024<br>28 January 2025 | 11 April 2024<br>14 May 2024<br>17 June 2024<br>9 December 2024 | 8 February 2024<br>20 May 2024<br>11 June 2024 |


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# MICRO90C

Sarytogan's flotation concentrate exhibits high crystallinity (Figure 2) confirmed with a tight interplanar spacing of 0.336nm from X-Ray Diffraction studies. The graphite ore is easily micronised to its natural micro-crystalline size of 5µm (d50). Products will then be classified into 3 tight size distributions below 15µm, 10µm, and 5µm (d90).

Sarytogan can customise product specifications, and packaging to customer requirements. All products will be economically rail-freighted throughout Europe and Asia in shipping containers with one-tonne bulk bags or 25kg paper bags on class 2 recyclable plastic pallets.

The typical specifications are shown in Table 2, Full 48 element analysis is available.

*Table 2 – Micro90C typical specifications.*

| C % (LOI 1000) | Si % | Al % | Fe % | Ca % | K % | Ti % | Cu % | Zn % | Mg % | S ppm | P ppm | $H_2O$ % | Sizing (d50) | BET $m^2/g$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| >90 | 1.80 | 1.35 | 0.22 | 0.08 | 0.05 | 0.04 | 0.03 | 0.03 | 0.02 | 180 | 30 | <0.5 | 5µm | 16.6 |

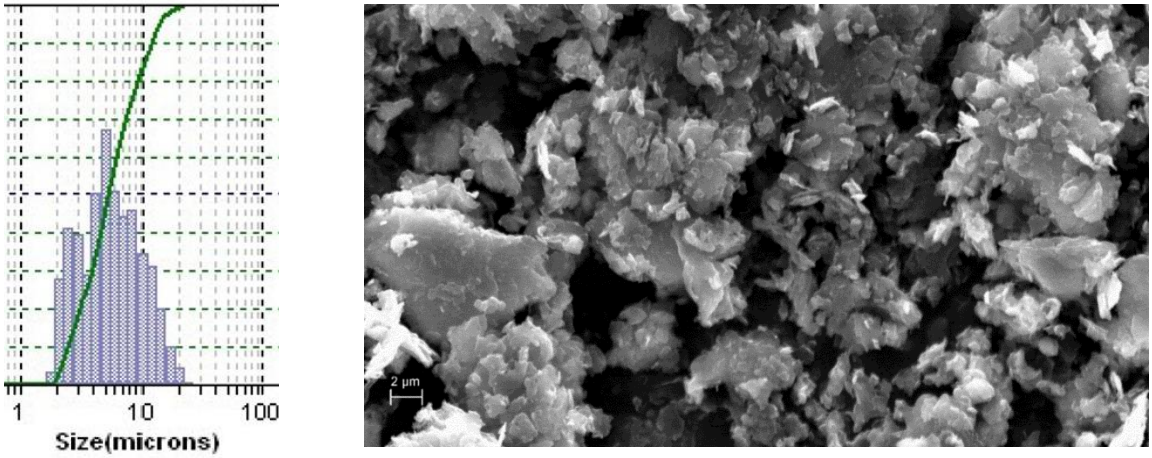


*Figure 2 - Sizing and SEM Image of Sarytogan Micro90C Graphite*

Micro90C has demonstrated superior performance as a wet and dry lubricant and as a recarburizer in grey and ductile cast iron. It is also suitable for brakes, plastics and rubbers.

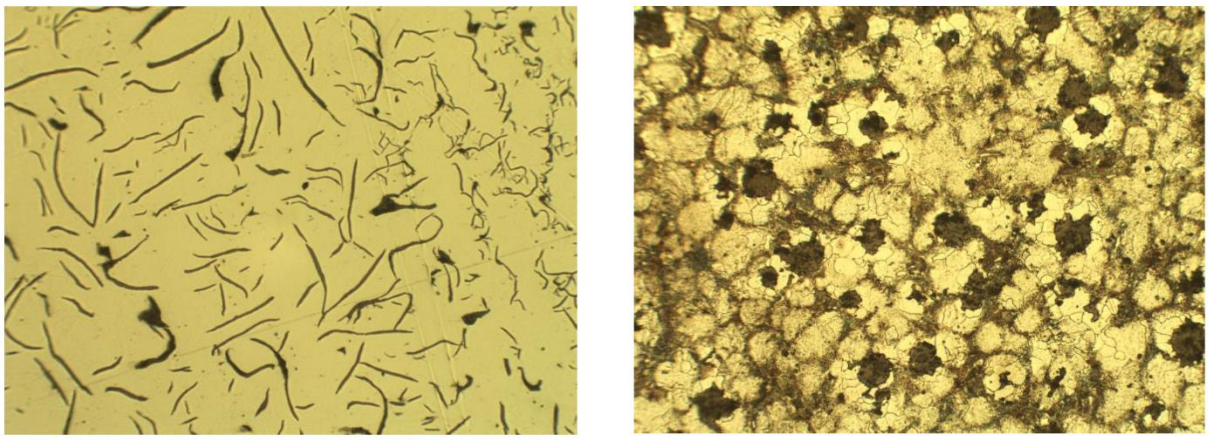

*Figure 3 – 100X Photomicrographs of Grey (LHS) and Ductile (RHS) Cast Iron Made with Micro90C.*

# ULTRA HIGH PURITY FINES (UHPF)

The Micro90C will be thermally purified to five nines purity (99.999% C) by thermal purification. Each thermal reactor can produce 6,000 tonnes of UHPF. One reactor will be built in year 1, with reactors 2 and 3 following in year 3 (Figure 1).

The quality of the UHPF is shown in Table 3. The UHPF will be classified into 3 tight size distributions below 15µm, 10µm, and 5µm (d90).

UHPF has been shown to out-perform incumbent products in alkaline, lead-acid, and lithium primary batteries (Figure 4). UHPF has also been shown to be highly suitable in the nuclear industry and as feedstock to the manufacture of synthetic industrial diamonds (Figure 5). Typical specifications are shown in Table 3.

*Table 3 – UHPF Typical Specifications*

| C %<br>LOI 1000 | S<br>ppm<br>GDMS | Si<br>ppm<br>ICP | Cl<br>ppm<br>GDMS | Fe<br>ppm<br>ICP | B<br>ppm<br>GDMS | EBC<br>ppm<br>GDMS | Tap<br>Density<br>g/cc | Scott<br>Volume<br>g/cc | Surface<br>Area<br>$m^2/g$ | $H_2O$<br>% | Sizing<br>(d50) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 99.9992 | 26 | 0.19 | 13 | 0.14 | 0.49 | 1.1 | 0.43 | 0.17 | 22 | <0.5 | 8µm |

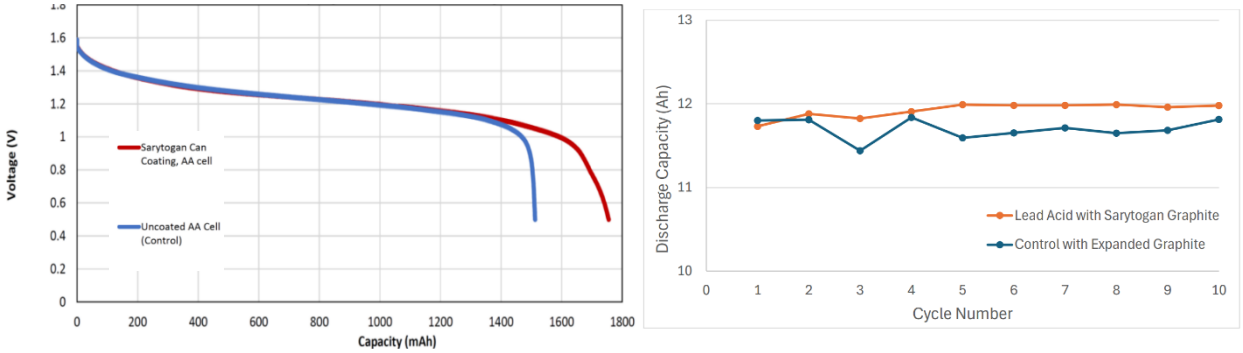


*Figure 4 - Superior Performance in Alkaline (LHS) and Lead Acid (RHS) Battery Discharge Curves*

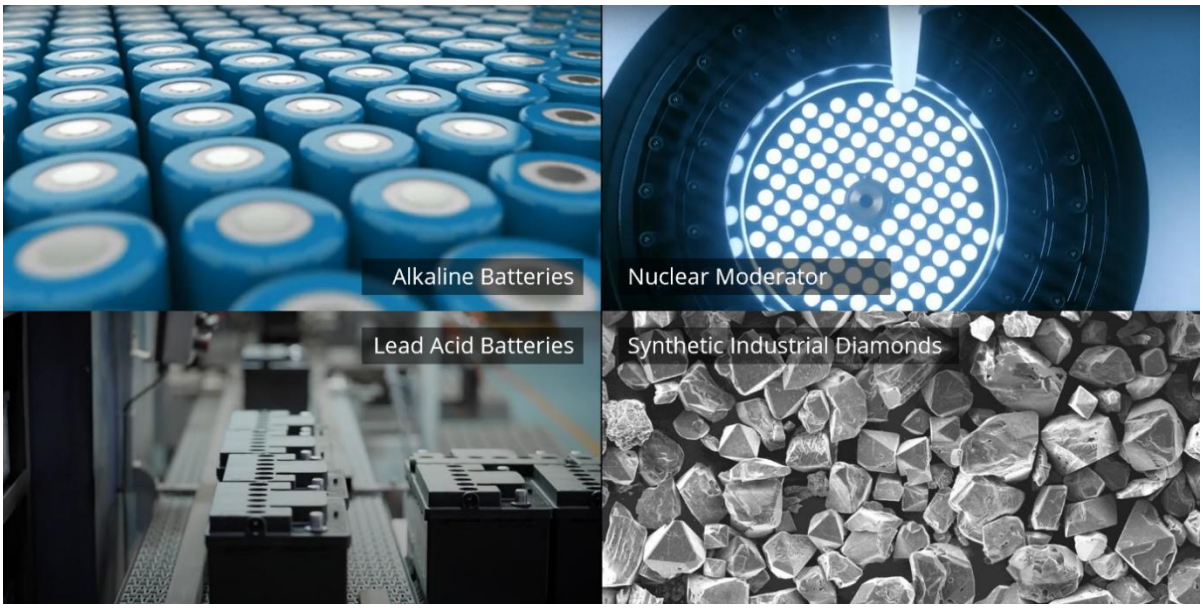


*Figure 5 – Advanced Industrial Uses for Sarytogan UHPF*

# SPHERICAL PURIFIED GRAPHITE (USPG AND CSPG)

Sarytogan plans to install spheronisation mills each of a nominal 300tpa product capacity. Initially one mill will be installed and then expanded up to 24 mills. The 7,000 tpa of Spheronized Purified Graphite (SPG) will be classified into 3 sizes, and results obtained by wet classification are shown in *Table 4*. Other cuts with lower tap densities can be milled back to UHPF.

*Table 4 - Sarytogan SPG physical properties*

| Cut | Yield (%) | Tap Density(g/cc) | Surface Area (m2/g) | D50 (µm) |
|---|---|---|---|---|
| USPG 0 | 15 | 0.97 | 11 | 25 |
| USPG 1 | 19 | 0.96 | 15 | 15 |
| USPG 2 | 11 | 0.93 | 12 | 12 |
| CSPG | - | 0.95 | 6.7* | 14 |

The SPG can either be sold as Uncoated SPG (USPG) or Coated (CSPG) in 3 different sizes (Figure 6).

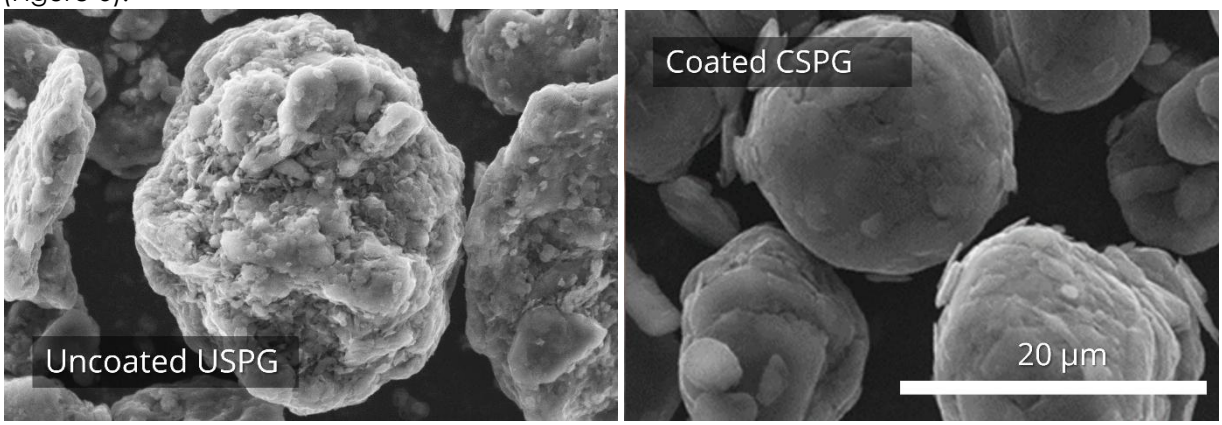


*Figure 6 - Sarytogan USPG (LHS) and CSPG (RHS)*

Sarytogan has successfully made and tested coin cell batteries with short- and long-term performance shown in Table 5.

*Table 5 - Comparison of lithium-ion battery performance for USPG, CSPG and industry benchmarks*

| | Performance Benchmark | USPG (ASX 8/2/24, 20/5/24) | CSPG (ASX 11/6/24) |
|---|---|---|---|
| Reversible capacity (mAh/g) | 330 - 345 | 342 - 347 | 354 |
| Irreversible capacity loss | 10% | N/R | 11%* |
| Capacity retained after 100 cycles | 98% | 97.3% | 98.9% |
| Extrapolated cycles to 80% threshold | 1,000 | Up to 1,000 | More than 1,600 |

* Coating optimisation is expected to lower surface area and irreveraible capicity loss.

For further information visit our website or
watch our project video on Youtube in three languages:

English
Русский
Қазақша