

28 November 2016

Haydale Graphene Industries plc

(“Haydale” or the “Group”)

Joint Development Agreement with Huntsman Advanced Materials

Haydale Graphene Industries plc (AIM: HAYD), the Group focused on the application and sale of enabling technology for graphene enhanced materials and products is pleased to announce that Haydale Composite Solutions Ltd (“HCS”), a wholly owned subsidiary of Haydale, has formally agreed a joint development agreement with Huntsman Advanced Materials. This agreement has resulted from the preliminary but highly successful work, jointly undertaken with Huntsman, to develop a range of graphene enhanced resins to complement its current product range.

The agreement provides Huntsman with the exclusive worldwide rights to market, distribute and sell a range of its resins enhanced with Haydale functionalised graphene. This will include ARALDITE® epoxy resins. The agreement will allow Huntsman to purchase Haydale’s graphene enhanced masterbatches for use in the fields of composites and adhesives. Huntsman has also agreed to work exclusively with HCS to further develop graphene enhanced masterbatches with specific targeted performance characteristics

Over the past 12 months, HCS and Huntsman have been jointly working on the development of graphene enhanced masterbatches and resin formulations with significant performance enhancements in terms of improved fracture toughness and thermal conductivity. After further development work to optimise both product performance and manufacturing processes, Huntsman’s resins enhanced with Haydale’s graphene technology will be evaluated by targeted customers looking to benefit from the fracture toughness or thermal conductivity property improvements. Assuming successful customer trials, there will be visibility of significant revenue potential as Huntsman’s customers realise the value of these graphene enhanced materials.

Ray Gibbs, Haydale CEO stated:

“We took the decision last year to invest internal funds in the development of targeted specific performance uplifts in epoxy resins for Huntsman. Not only have we produced exciting results with Huntsman’s resins but the mixing, formulation and processing know how we have gained is very significant in ensuring consistent quality, differentiating us from competitors and will enable us to accelerate the development of new applications and hence commercial revenues. These are exciting times for the Group as we start to commercialise all the development work carried out over the past year or so.”

Commenting on the agreement, Gerry Boyce Managing Director of HCS said:

“We have made great progress over the past 12 months in the development of graphene enhanced epoxy masterbatches which can be diluted into formulated resins with major increases in fracture toughness, electrical conductivity and thermal conductivity. The ability to radically change the base properties of resins and adhesives is pivotal and will offer designers the ability to be creative and develop cost effective, high performance composite structures across a broad range of industries, including industrial and automotive composites, sports goods and at a later stage, aerospace. We look forward to building on our strong working relationship with Huntsman initially in completing the development program, and moving into the commercialisation of these next generation materials.

Dr. David Hatrick, Huntsman Advanced Materials, Vice President Innovation, commented:

“Graphene enhancement of epoxy resins has been demonstrated in research programs for a number of years, but as yet has not made the jump into higher volume industrial applications in any major way. Our work with Haydale has shown that significant performance improvements can be achieved whilst maintaining processibility of the resins, overcoming a key challenge. We have signed a formal joint development agreement with Haydale and will continue to dedicate resources to complete the optimisation of resin performance for composites and adhesives applications. We look forward to achieving a key milestone in the commercialisation process within the next 6-12 months during which time we will begin sampling materials to our customers in these important industrial markets.”

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014.

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About Haydale

Haydale has developed a patented scalable plasma process to functionalise graphene and other nanomaterials. This enabling technology can provide Haydale with a rapid and highly cost-efficient method of supplying tailored solutions to enhance applications for both raw material suppliers and product manufacturers.

Functionalisation is carried out through a patented low-pressure plasma process that treats both mined, organic fine powder and other synthetically produced nanomaterial powders, producing high-quality few layered graphenes and graphene nanoplatelets. The process can functionalise with a range of chemical groups, with the level of functionalisation tailored to the customer’s needs. Good dispersion improves the properties and performance of the host material and ensures the final product performs as specified.

The Haydale plasma process does not use wet chemistry, nor does it damage the material being processed; rather, it can clean up any impurities inherent in the raw material. The technology is a low energy user and most importantly environmentally friendly. The Haydale process is a patented enabling technology, allowing the Group to work with a raw material producer who seeks to add value to the base product and tailor the outputs to meet the target applications of the end user.

Haydale, based in South Wales and housed in a purpose-built facility for processing and handling nanomaterials, is facilitating the application of graphenes and other nanomaterials in fields such as inks, sensors, energy storage, composites, paints and coatings.

www.haydale.com Twitter: @haydalegraphene

About Haydale Composite Solutions (HCS)

Haydale Composite Solutions Ltd ("HCS") is based in Loughborough UK and is a wholly owned subsidiary of Haydale Graphene Industries plc ("HGI"). HCS (previously known as EPL Composite Solutions Ltd was acquired by HGI in November 2014) has developed a reputation for delivering innovative solutions in the commercial applications of advanced polymer composite materials working with global companies over more than 20 years. HCS are tasked with developing new markets and applications for graphene enhanced nanocomposite materials across a broad range of industries.

About Huntsman

Huntsman Corporation is a publicly traded global manufacturer and marketer of differentiated chemicals with 2015 revenues of more than \$10 billion. Our chemical products number in the thousands and are sold worldwide to manufacturers serving a broad and diverse range of consumer and industrial end markets. We operate more than 100 manufacturing and R&D facilities in approximately 30 countries and employ approximately 15,000 associates within our 5 distinct business divisions. The company's unique portfolio includes a broad range of epoxy resins and formulated systems which appeal to companies working in challenging markets who want to be at the forefront of innovation and product development. For more information about Huntsman Advanced Materials please refer to the Corporate WEB site http://www.huntsman.com/advanced_materials/a/Home