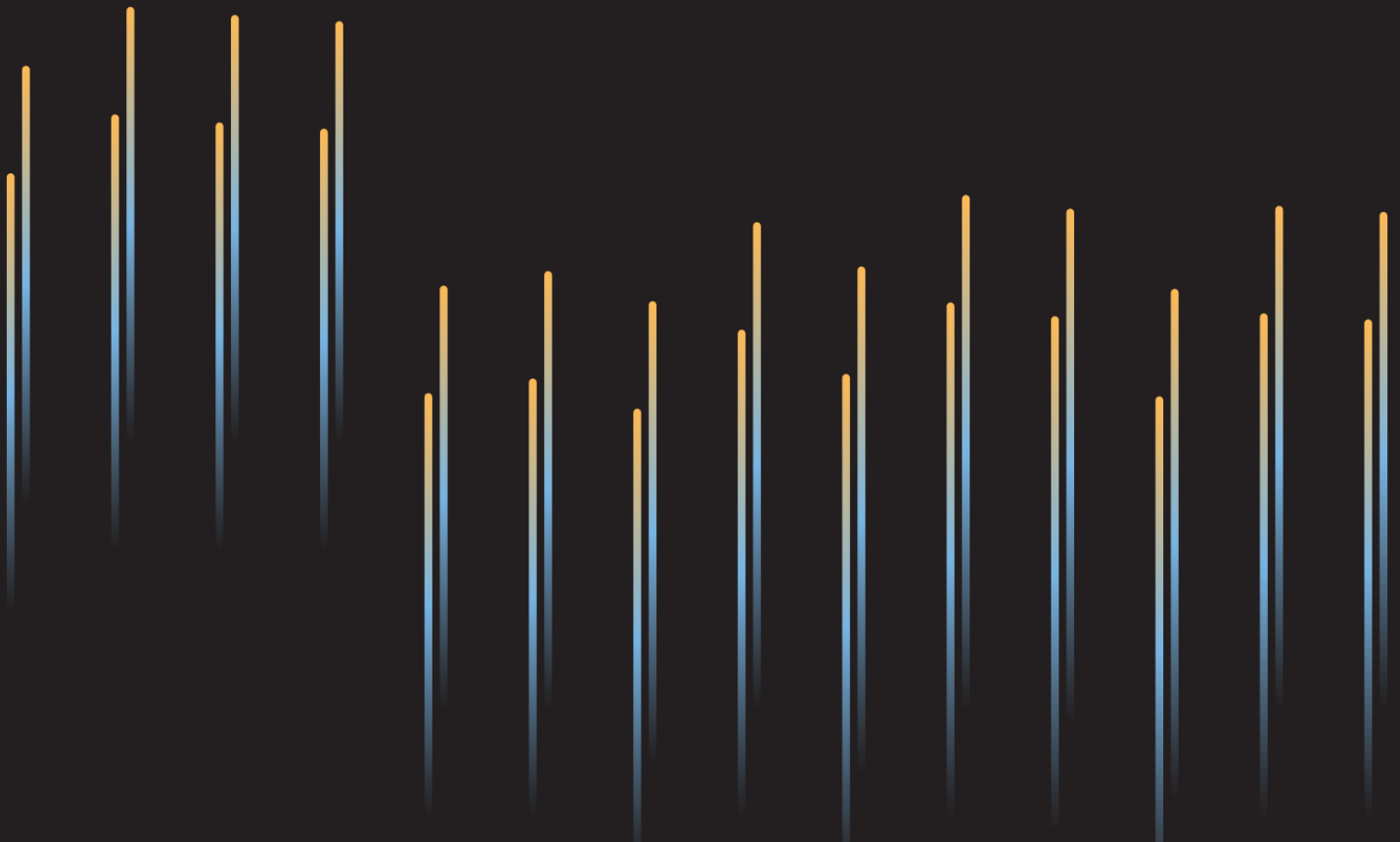


# Olmec Advanced Materials

UK Based Carbon  
Graphite Machining &  
raw material supply

+ Facility upgrade

Increased capabilities since 2024





E-Brochure  
[www.olmec.co.uk](http://www.olmec.co.uk)

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# Company Overview

If you have any questions about the ways Olmec can help with your carbon and graphite requirements, do not hesitate to contact us, or visit our website:  
[www.olmec.co.uk](http://www.olmec.co.uk)

# Company Overview



1.1

## 1990

Founded

## Today

Leading UK graphite  
supply & machining

Established in 1990, Olmec have become one of the most trusted names in Europe when it comes to all things carbon and graphite.

Olmec's founder, Paul Lancaster, had a vision to provide an independent organisation with expert advice and attentive customer service throughout the process.

To this day, Olmec remain true to these values and have only grown in expertise and capacity

Our commitment to innovation, quality, and customer satisfaction has driven our growth and solidified our market position. Throughout 2024, we continued to expand our capabilities and product range, with a focus on bespoke machining.

# The Olmec Philosophy



1.2

## The Olmecs

The Olmecs were based around the Bay of Campeche in latter day Mexico, near the towns of La Venta and San Lorenzo. The Olmecs were very innovative people; they were the first Central American people to have a written form of communication. The Olmec people excelled in monumental architecture and sculpting.

We aim to succeed in sculpting of our own, creating quality products for our clients. Over the last four decades, we have built up a strong reputation for this high quality and for our rapid delivery times. At the heart of our philosophy is effective communication, which we believe is one of the key principles for success in all aspects of life. We strive to build solid foundations of friendship with our customers.



Since a complete 'shake up' following COVID-19 in 2020, our focus has been on renewal and innovation within our business practices, leading to new machining capacities, new product ranges, and a totally digitised business model.

# Founder & Team



1.3



Paul Lancaster  
Managing Director & Founder

Paul founded Olmec Advanced Materials in 1990, drawing experience from his chemistry degree and technical sales experience. Paul has remained an instrumental part of all aspects of the business throughout the years.

## Team Contacts & Locations

Elena Kirkup  
General Manager

Aine Bowker  
Sales & Office Administration

Cameron Sheil  
Engineering Manager

Head Offices  
*Unit 37, Venture One Business Park,  
Sheffield S20 3FR*

Machining Facility  
*Unit 13, Leachfield Industrial Estate,  
Garstang, PR3 1PR*

# Carbon Graphite





# Properties

2.1

## Carbon & Graphite



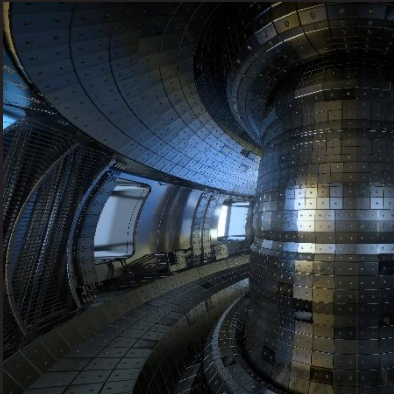
Carbon graphite materials possess several remarkable properties that make them invaluable across various industries. These materials feature excellent thermal conductivity, high temperature resistance (up to 3000°C in non-oxidizing environments), low thermal expansion, and superior chemical resistance. Carbon graphite is also self-lubricating with low friction coefficients, electrically conductive, and maintains good mechanical strength while being lightweight.

# Industries & Applications

# Industries & Applications



3.1



## Nuclear Fusion/ Energy Sector

Because graphite is so highly conductive, heat resistant and unreactive in extreme environments, it is used throughout energy storage and production applications. Both the nuclear fusion and battery storage sectors use graphite and carbon materials in the form of felts, insulation, sheets and lining in particular. Graphite is also used in fuel cell applications, as a conductive material for bipolar plates.



## Construction Materials Industry

Carbon and graphite are used in the construction industry at a manufacturing level. Carbon bushes and bearings are used in high quantities in the production of gypsum/plasterboard. Graphite and carbon have extremely good lubricating properties, and as a result are often used in large scale rotating machinery. Graphite is used within the cement industry as lubrication aids in rotary kilns, and as linings.



## EDM (Electric Discharge Machining) and Spark Erosion

Electric Discharge Machining is a machining process which essentially focusses on removing material from a part by means of repeatedly running electrical discharges between electrodes. The best material to use to produce these electrodes is graphite, given its high conductivity, easy machinability and resistance to thermal shock. It also has a low coefficient of thermal expansion, giving graphite the stability needed for EDM.

# Industries & Applications



3.2



## Food & Beverages Production

In rotary production systems such as industrial conveyor ovens and flash freezing, graphite and carbon are extremely useful materials. Not only can they be used in the form of machined bearings for lubrication, trays, lining or insulating materials are made from them too. Graphite performs incredibly well under extreme temperatures, and because of its lubricity offers a non-stick solution.



## Heat Treatment, Furnaces & Continuous Casting

Heat treatment furnaces require extreme temperatures under which most materials would be severely impacted. Graphite, graphite and/or carbon felts plus graphite insulating boards are used as:

- Sinter plates
- Heating elements
- Flexible & Rigid Insulation felts and boards
- Spacers
- Supporting Trays



## Glass & Ceramics

Graphite is generally used throughout the glass industry for moulds and other parts which must come into contact with molten glass without melting or altering its properties.

Take-out tongs, collector rolls, pouring funnels, pusher bars and more are used in the production of container glass, flat glass and sculptural glass.

# Industries & Applications

These are merely some of the potential applications for graphite and carbon. For more details on how graphite or carbon can be used to improve your processes, do not hesitate to contact our expert staff.



## Continuous Casting

Graphite is a crucial material in continuous casting applications due to its excellent thermal properties and resistance to high temperatures. Its low friction coefficient and self-lubricating characteristics make it ideal for moulds and dies. Graphite components help maintain dimensional stability and provide consistent heat transfer during the continuous casting process, leading to improved product quality and reduced maintenance requirements.



## Aerospace & Defence

Graphite is essential in aerospace applications due to its high temperature resistance and lightweight properties. It is used in rocket nozzles, cryogenic systems, and high-temperature aerospace components. The material's thermal stability and strength make it crucial for both high-temperature and cryogenic applications in spacecraft and aircraft systems.

# Products & Technical Information

- 4.1 Products
- 4.2 Medium Grain Graphite
- 4.3 Isostatic Graphites





Products

General Information

Graphite for EDM

Olmec’s TDX™ Range offers a selection of isostatic graphites with exceptionally low particle sizes, suited best to use in the EDM industry. The range includes roughing, semi/ finishing, detailing and ultra fine detailing grades, to meet whatever your requirements happen to be.

You can find the technical data and extra information about our TDX™ range by visiting our website at [www.olmec.co.uk](http://www.olmec.co.uk).

Fine Grain Graphite

An extensive range of fine-grained isostatic graphite are stocked at our graphite machining workshop. This enables us to offer grades for the vast majority of applications.

Medium Grained Graphite

We stock over ten different grades of medium grained graphite at our graphite machining workshop, with our most popular and world class grade being MCCA.

Carbon/ Graphite felts, cloth and rigid felt boards.

Carbon / Graphite felts and rigid felt boards. Please visit [www.olmec.co.uk](http://www.olmec.co.uk) to find our carbon felts brochure.

# Medium Grained Graphite

4.2



## Rods

Medium grained graphite rods are available Ø3mm–Ø1100mm with other sizes are available upon request.

## Blocks

Medium Grained Graphite Blocks up to 915mm x 375mm x 3150mm with other sizes available upon request.

We stock over ten different grades of medium grained graphite at our graphite machining workshop, with our most popular and world class grade being MCCA.

Our medium grain graphite rods and blocks are supplied globally for a wide range of applications from our facility in the UK. Our standard sizes and pricing are available on our website. Please send any enquiries to [info@olmec.co.uk](mailto:info@olmec.co.uk).



# Fine Grained Graphite



4.3

Olmec's fine grain graphite range includes grades well suited to demanding applications. The range includes but is not limited to our fine grain graphites datasheet which can be found at [www.olmec.co.uk](http://www.olmec.co.uk). With any specific requirements, contact our team.



## Why choose fine grain graphite?

Olmec's isostatically pressed range of fine grain graphites boast fantastic strength properties, electrical conductivity, heat resistance and chemical stability.

Applications such as metallurgy, vacuum & heat treatment furnaces, continuous casting, EDM (Electrical discharge machining) and the chemical industry benefit greatly from these properties.

Olmec's machining facility has the capacity to machine bespoke parts to your required tolerances, using new 4 axis CNC machines and CMM measuring equipment.

Table 4.3: Fine Grained Grades. Please contact [info@olmec.co.uk](mailto:info@olmec.co.uk) with any enquiries, including a drawing if required.

# Our Standards & Ethics

# Standards & Ethics



At Olmec, the treatment of staff, suppliers & customers is of the utmost importance to us.

We believe that a code of ethics should apply to every aspect of a business, big or small.

The rights to fair and safe work are fundamental human rights, and we are always taking steps to improve our approach across our business.

We believe that our business can help to promote human rights through our ethical supply, but also acknowledge that without proper oversight, it can present risks to human rights as well.

Our health and safety procedures are crucial to a happy and open working environment, from our machining facility in Garstang, to our head offices in Sheffield. If you would like to see any of our company policies in detail, please visit [www.olmec.co.uk](http://www.olmec.co.uk).





# Enquiries

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We would love to hear from you.

Should you have any questions about how Olmec can assist a project for your company or simply wish to know more about what we do, our team of experts would be happy to help.

As an independent, UK based company, we pride ourselves on communication and our attentive, personal service.

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Website:

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DUNS Number: 50 505 2859

