®MecCarbon.C8

The Graphite technology

The Resin-Free Evolution of Impregnated Carbon Performance

MTU MecCarbon C8 is the latest graphite material developed by the Meccanotecnica Umbra R&D team.
The result of five years of research and industrial validation, MecCarbon C8 has been engineered as a high-performance alternative to traditional resin-impregnated carbons.
Already tested and successfully implemented in the market, C8 combines the typical functional behaviour of impregnated grades with the structural stability and sustainability advantages of a fully synthetic, resin-free material.
With MecCarbon C8, Meccanotecnica Umbra offers OEMs and industrial partners the opportunity to maintain the operational familiarity of resin-impregnated carbons, while transitioning to a more stable, sustainable and technologically advanced solution.

KEY POINTS

- **Sustainable**
- **Limited Adhesion Effect**
- **Wear Resistance**
- **Structural Stability**

KEY ADVANTAGES

Sustainability
Unlike resin-impregnated carbons, MecCarbon C5 contains no phenolic resins and requires no pitch or tar during production. This results in a cleaner manufacturing process, a more durable and stable material, making it the preferred choice for customers with a strong focus on environmental sustainability.

Limited Adhesion Effect
Internal laboratory tests demonstrate a limited adhesion effect during operation.
Start-up torque values are comparable to, and in several cases lower than, those of traditional resin-impregnated carbons, ensuring smooth and reliable commissioning.

Wear Resistance
Testing confirms wear resistance aligned with, and in certain applications superior to, resin-impregnated grades.
This makes MecCarbon C8 suitable for a wide range of sealing applications where durability and predictable performance are required.

Structural Stability
Unlike impregnated carbons, which rely on natural quarry-derived extracts, MecCarbon C8 is formulated using synthetic raw materials.
This results in a more homogeneous and consistent microstructure, positively influencing dimensional stability, repeatability and long-term performance.

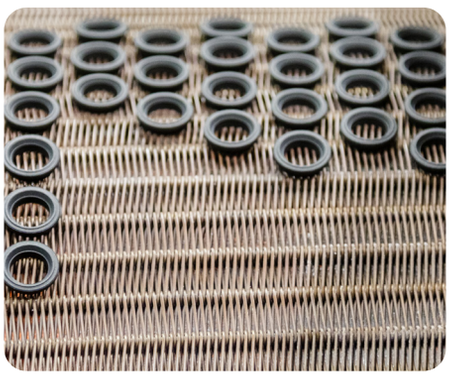
OUR DIFFERENCE

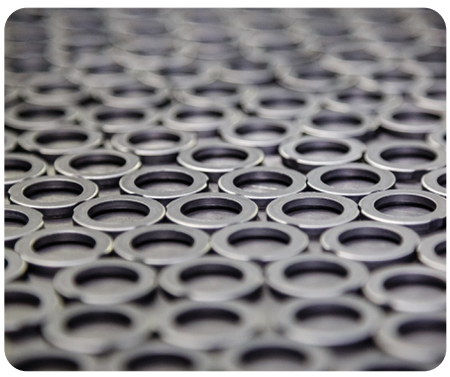
Unlike most market players, Meccanotecnica Umbra designs and manufactures its sliding surfaces entirely in-house. From the formulation of the carbon powder compounds to the definition of processes and sintering parameters, every step is engineered internally and validated through advanced testing capabilities.
This integrated approach allows us to tailor sliding surfaces precisely to the operating conditions and to the mechanical seal design itself—making them a core, purpose-built component of our sealing systems, rather than a standard material sourced from the market.
The new MecCarbon and MecSilicon families further expand Meccanotecnica Umbra's advanced sliding surface portfolio. These solutions complement the well-established Mecflon range, which—particularly in its Y1 and Y4 grades—represents the global benchmark for PTFE sliding surfaces used in mechanical seals.

®MecCarbon.
The Graphite Technology

®Mecflon.
The PTFE Technology

®MecSilicon.
The SICTechnology






Meccanotecnica Umbra
a Story of Excellence

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