

New soft felt solutions for SiC semiconductor applications

Redefining insulation performance with up to **50%** less energy usage

For years, Morgan® WDF grade has set the benchmark for stability and reliability in extreme-temperature environments, trusted as the go-to solution in PVT furnaces for single-crystal SiC growth. But at Morgan, we don't just maintain standards – we push them forward.

Driven by our deep materials science expertise and close collaboration with the SiC industry, we proudly introduce the new Morgan® **VDX** and **WDX** grades – next-generation carbon and graphite felt insulation engineered for performance and efficiency. All our products are produced with high-quality 100% rayon precursors and consistent, proprietary manufacturing processes.

Superiority in the furnace, proven by leading SiC manufacturers.

Laboratory and real-world PVT furnace testing has demonstrated that the Morgan® WDX grade requires up to **50% less energy** to maintain 2400 °C compared to our own WDF grade — a dramatic improvement in thermal efficiency that translates into measurable energy savings and extended system life.

Why Morgan® WDX?

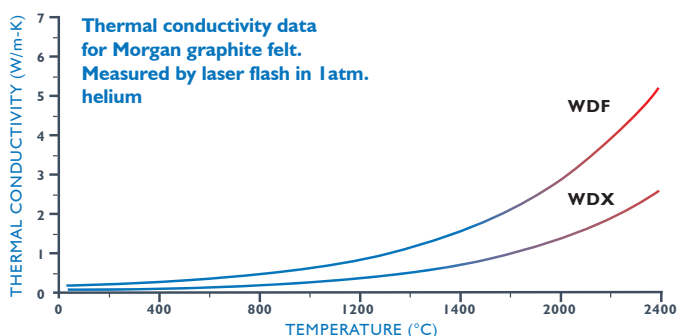
- Maintains integrity at above 2500°C with minimal outgassing and shrinkage.
- Minimises heat loss, enhances process control, and improves furnace temperature uniformity.
- Developed with, and for the needs of, the SiC semiconductor industry – where process control, material purity, friability, and thermal consistency are non-negotiable.

For more technical information, please contact semiconductor@morganplc.com

Typical properties	VDX	WDX
Density, g/cc ¹	0.09	0.08
Linear shrinkage ² , %	1	Negligible
Ash, %	0.25	0.02
Min. carbon assay, %	99	99.9
Friability, %	1.5	2.5
Min. process temp, °C	1900	2500

¹ Can be customised for optimum performance

² Measured after heating to 3000°C



Can be supplied in bulk rolls, precision-cut parts, or pre-rolled cylinders. Choose from a range of thicknesses from 1/8" to 1" to accommodate diverse insulation and padding requirements.