

OUT-OF-THE-BAG SOLUTIONS IN LPCVD APPLICATIONS



SUMMARY:

AGEM SiC components (boats, pedestals, liners, plates, etc.) are now recommended as “Out-of-the-Bag” clean for LPCVD processing. This ability to take SiC components from their original packaging and install them directly into your LPCVD furnace will drastically reduce your process downtime by eliminating the previously standard initial wet cleaning requirements. Out of the Bag components simply require a quick pre-condition coat and are then ready for standard processing. Pre-coating ensures good process uniformity and performance.

AGEM’s superior cleaning process results in component surface particle counts of <1 particle/in². This performance is a result of AGEM’s standard cleaning process, and when combined with our low particle clean-room quality packaging, results in our Out of the Bag clean status for all LPCVD components with no additional costs to our customer.

PACKAGING DETAILS:

AGEM’s custom packaging helps to ensure low particle generation during shipment. Our packaging consists of a three layered, straight chain, low density, additive free polyethylene manufactured in a clean room facility. Our packaging is specifically customized to ensure high purity, low particle and high strength performance. Our bags are certified for an inside particle count level of less than 10 particles/ft³, resulting in low particle transfer to our components. Particle generation, due to abrasion during shipment, demonstrates a level of less than 1particle/ft³ addition. These factors add up to low particle counts directly out of the AGEM manufacturing process.

AGEM CLEANROOM OPERATING LEVEL:

Class	Particle Size (µm)			
	>0.1	>0.2	>0.3	>0.5
10,000	-	-	-	10,000
1,000	-	-	-	1,000
100	-	750	300	100
AGEM Clean Room Particle Level	327	385	198	26

KEY POINTS:

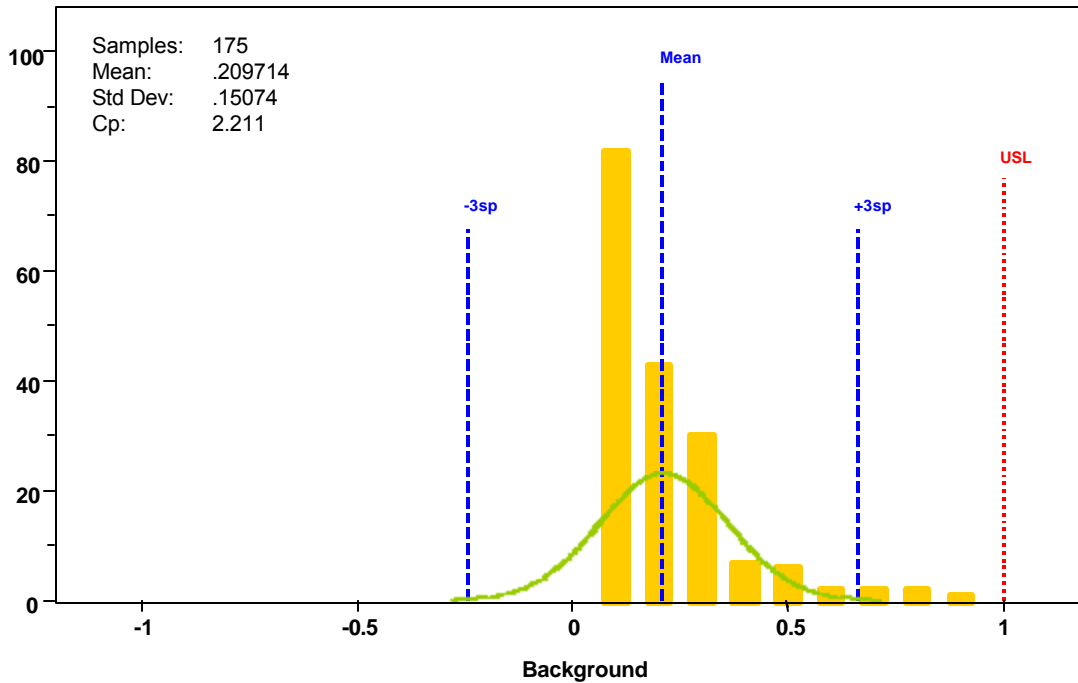
- ✓ Ultra high-purity components
- ✓ Out-of-the-Bag Clean
- ✓ Installs directly into your furnace
- ✓ Reduces process downtime
- ✓ Reduces maintenance



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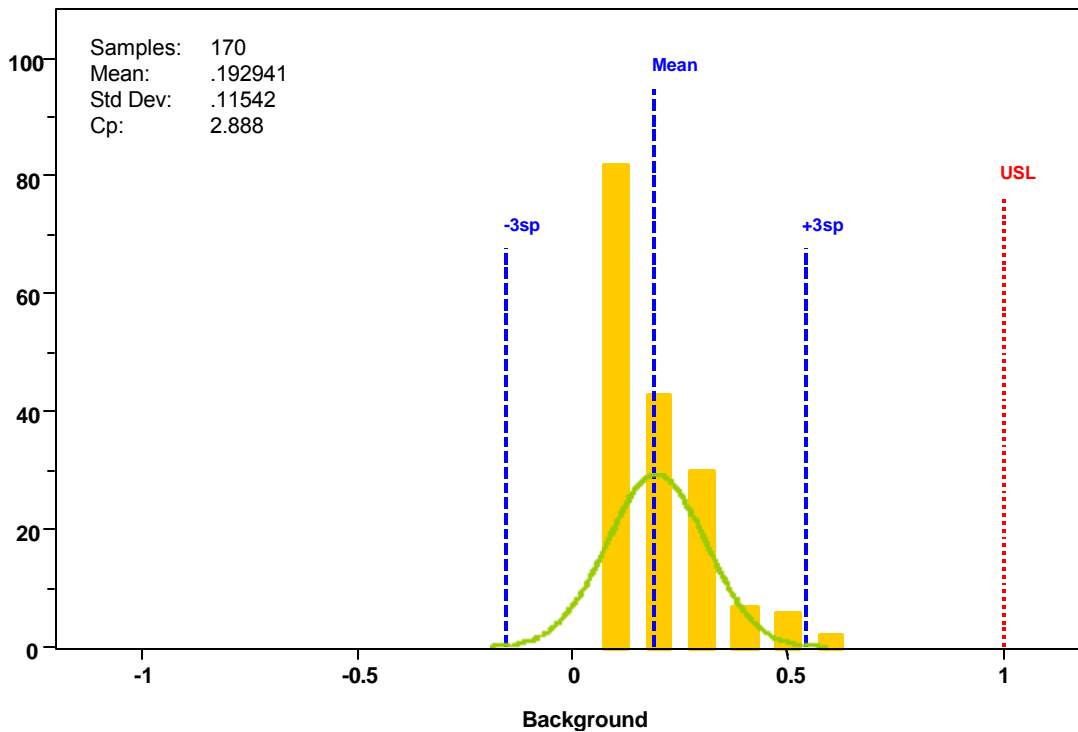


COMPONENT SURFACE PARTICLE COUNT:



These measurements were taken using surface particle count detection equipment. This chart demonstrates on-component surface particle counts that are extremely low <math><1\text{part/in}^2</math> at the

BASELINE PARTICLE COUNT:



These measurements were taken in the areas surrounding the inspection/process stations. They demonstrate a very low baseline level of