



MOMENTIVE

performance materials

Ingots

Momentive Performance Materials is a world leader in providing high purity fused quartz solid shapes for fabricators of quartzware. The solid shapes are available in three standard material types, each with various purity levels.

Type 124

Type 124 ingots have been the semiconductor industry's material of choice for fabricating diffusion CVD furnace components and etcher components for more than two decades.

Description Clear fused quartz plate and window material produced in 72 inch diameter and 22 inch thick ingots. This material has high purity and will contain some fine bubbles. Various sizes and shapes are available.

Typical Applications Used to fabricate wafer carriers and flanges for the semiconductor industry and in a variety of applications where low cost commercial quality is specified.

Type 144

The advent of larger wafer sizes, smaller device geometries, and the drive for lower contaminant levels has stimulated Momentive's development of even higher purity grades.

Type 144 is specially processed to reduce alkali content by up to 90%. Sodium is held to 0.5 ppm or lower, potassium is significantly reduced and lithium is about 0.2 ppm.

Description Same as Type 124 with low aluminum, potassium and sodium.



Typical Applications Same as Type 124 with low aluminum, potassium and sodium. For users who prefer lower aluminum, potassium and sodium material.

Type 012

Type 012 provide the ultra high purity of synthetic fused silica, while maintaining low hydroxyl (-OH) level.

Description Clear synthetic fused silica ingots in the same form as Type 124.

Typical Applications Its ultra high purity makes it ideal for plates and discs used in the most critical semiconductor processes.



Type i21* Quartz Ingot

Momentive i21 quartz ingot is an excellent choice for semiconductor equipment manufacturers supporting the production of advanced 300mm wafers with sub-micron line widths. The near defect-free quality of i21 ingot reduces the risk that particulate will adversely impact semiconductor yields. Using a patent-pending process, the product is manufactured as a solid cylinder to be virtually bubble free and is designed to reduce material waste.

Description Ultra-low bubble content with homogeneous quality throughout. Available in several natural sand purities. Low (-OH) suitable for high temperature processes. Available in 406-560mm sizes.

Typical Applications Single wafer etch chamber windows, batch wafer applications and other components requiring excellent visual clarity.

PURITY	BUBBLES		
	Standard	AA	i21
Natural: standard	124	124 AA	i21-24
Natural: low Al	N/A	N/A	i21-34
Natural: low alkali, low Al	N/A	144 AA	i21-44
Synthetic: <1 ppm impurities	N/A	012 AA	i21-12 (under development)

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