

VALTRON®

EPOXY ADHESIVES



VALTRON® epoxy adhesive systems are available in various formulations designed for use to meet the specific needs and performance requirements in photovoltaic and semiconductor wafer production using both annular (ID) slicing and wire saw slicing processes. These patented two-component quick-curing adhesive systems are made with unique components and performance characteristics to maximize production throughput and reduce the amount of stress occurring between the crystalline material and the adhesive. This reduction in stress results in a decrease in the amount of edge chips that occur during slicing. VALTRON® adhesives prevent loading onto the annular saw and will eliminate saw marks, increase saw blade life, and improve slicing yields. Easy removal of the epoxy from the wafers with a VALTRON® heated detergent solution eliminates the need for aggressive acids, caustics, and solvents. VALTRON® adhesives are color pigmented to easily indicate when a complete mix of resin and hardener is achieved, and provide fast cure times at room temperature.

Annular (ID) Slicing

VALTRON® epoxy adhesives are designed for the annular (ID) slicing process. Unique components are incorporated into product formulations to reduce the amount of stress occurring between the crystalline material and the epoxy. This reduction in stress results in a decrease in the amount of exit chips that occur during slicing. These epoxies are also designed to prevent loading onto the annular saw blade and will eliminate saw marks and increase saw blade life.

Wire Saw Slicing

Valtech Corporation has developed adhesive products designed specifically for the wire slicing process. These quick curing adhesive systems were developed to maximize production throughput. Removal of the epoxy from the sliced wafers is easily accomplished with a heated VALTRON® detergent solution, eliminating the need for aggressive acids and solvents.

Temporary Bonding Adhesives

VALTRON® temporary bonding adhesives are two-part epoxies that are formulated for easy debonding from substrates offering an alternative to wax mounting of parts with the added benefit of easier cleaning. VALTRON® temporary adhesives are strong enough to support typical slicing or machining operations after a one-hour cure time at room temperature. Following the cutting or machining process, parts are easily dismounted from any substrate by placing in hot water at a temperature of 95°C (203°F). This same bonding adhesive technology can also be used as a temporary protective coating for sensitive components.

