



Highlights

- Available in various formulations
- Maximizes production throughput
- Reduces the amount of stress occurring between the crystalline material and the adhesive
- Decreases the amount of edge chips
- Easy removal of the epoxy from the wafers with a VALTRON® heated detergent solution eliminates the need for aggressive acids, caustics, and solvents

Two-component, quick-cure adhesive systems

VALTRON® epoxy adhesives

VALTRON® epoxy adhesive systems are available in various formulations designed to meet the specific needs and performance requirements in photo-voltaic 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® Epoxy Adhesives	Base material	Bond strength 8 yrs [psi]	Cure time [hrs]	Shore D	Density [g/cc]	Viscosity [cps]
VALTRON® AD1210-A/AD1769-B	Epoxy	1	6	75	1.21	65'000
VALTRON® AD1230-A/AD1210-B	Epoxy	1	5	82	1.21	35'000
VALTRON® AD1339-A/AD3939-B	Epoxy	1	2	85	1.65	115'000
VALTRON® AD1238-A/AD3848-BR	Epoxy	1	2	84	1.21	70'000
VALTRON® AD1339-A/AD3905-B	Epoxy	2	4	85	1.47	43'000
VALTRON® AD4010-A/AD4015-B	Epoxy	1	2	74	1.14	11'500
VALTRON® AD4010-A/AD4017-B	Epoxy	380	2	74	1.03	275'000

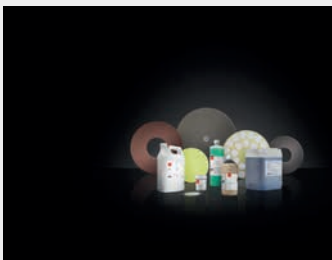
The data presented is a statistical representation for comparison purposes. The values are not necessarily a representative of the COA specifications.



VALTRON® adhesives prevent loading onto the annular saw, increase saw blade life, and improve slicing yields.



VALTRON® adhesives are used with VALTRON® Slicing Beams. We are happy to assist you in finding the best suitable products.



Pureon offers a wide range of customized solutions. Get in touch with us.

Product specifications

Base material Epoxy
Shelf life 12 months

Application recommendations

Handling The VALTRON® adhesive is a two-component system for mounting semiconductor and photovoltaic ingots. Mixing ratios are by weight, and must be observed to achieve best results. The hardener is pigmented to indicate when a thorough mix has been obtained for the two adhesive components. It is important that all surfaces be thoroughly cleaned prior to applying the adhesive. A thin, uniform layer of adhesive results in optimum performance.

Conventional epoxy removal methods will demount sliced wafers mounted with the VALTRON® ingot mounting adhesives. The VALTRON® ingot mounting adhesive can be used in conjunction with the VALTRON® AD8000 ingot mounting primer to eliminate the need for hazardous demounting solutions. Ingots mounted with the VALTRON® AD8000 ingot primer coat and the VALTRON® ingot mounting adhesive can be removed with the VALTRON® high pH formulated alkaline detergents.

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 provide fast cure times at room temperature.

Storage The optimal application temperature for VALTRON® epoxy adhesives is 77 °F 3 degrees (25 °C) after receiving the package. Temperature is important because the adhesive layer may be too thin at higher temperatures, or too thick to mix and spread at lower temperatures. It may also be difficult to release the entrapped air from applied adhesive layer at lower temperatures. The area where the bonding of the silicon ingot to the slicing beam process will take place should be maintained at 68 – 77 °F (20 – 25 °C) with a relative humidity of 60 % or below.

Disposal Dispose of in accordance with all applicable local regulations.

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