



IC1000™ Polishing Pad

DESCRIPTION

IC1000™ pad is the industry-standard polishing pad for chemical mechanical planarization (CMP). The IC1000 pad is made of a rigid, micro-porous polyurethane material. These properties enable the IC1000 pad to deliver localized planarization, excellent removal rates, low global non-uniformity and low defectivity. The IC1000 pad works effectively with slurries and conditioners to optimize CMP performance in Tungsten, Copper, ILD, STI, and polysilicon processes.

PRODUCT CONFIGURATION

Thickness

The standard thickness for an IC1000 pad is 50 mils, but it is also offered in a thickness of 80 mils if a stiffer pad is required.

Optical Endpoint Window

IC1000 pads are offered with a transparent urethane window to enable the optical endpoint technology in leading edge CMP tools. Advanced optical endpoint pads feature a window that is bonded to the IC1000 pad to prevent slurry leakage and window delamination in all CMP processes.

Diameter

IC1000 pad is offered in a wide variety of diameters and shapes making it compatible with leading edge CMP tools. These pads are designed to work with leading rotary, orbital and belt CMP tools making the IC1000 pad the industry standard CMP pad.*

*Please contact your local Rohm and Haas Electronic Materials technical sales representative to determine the IC1000 pad configuration that would yield the best results and lowest cost of ownership in your CMP process.

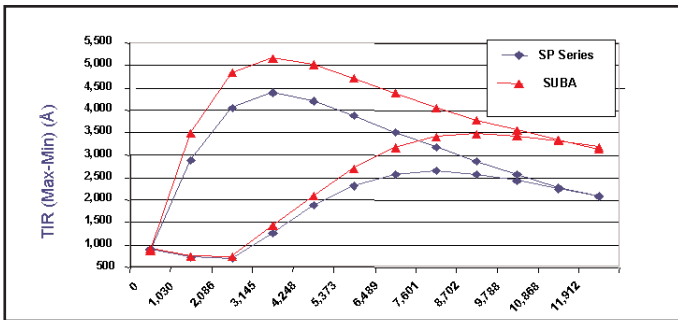
Grooving

IC1000 pad is offered in a wide variety of grooving patterns across the surface of the pad. Please consult your local representative for the pattern that will meet the needs of your CMP applications.

Subpads

A compressible subpad improves the global non-uniformity performance of IC1000 pad. These pads are offered with a variety of subpads depending on the performance needs of the process.

- Suba™ IV subpad is the industry standard subpad.
- SP2000 subpads are the next generation of subpads, which offer improvements in reliability and performance.



SP Subpads Show Improved Planarization Versus Suba



Integrated Window bonds window material to IC1000™ Pad.



creating the
flawless surface

PRODUCT MANUFACTURING

IC1000 pads are produced at state-of-the-art manufacturing facilities in Newark, Delaware and Mie, Japan. These facilities have the demonstrated capacity to handle the high-volume production requirements for all size semiconductor fabrication facilities with the flexibility to deliver customized pads addressing the needs of the most unique CMP processes.

The IC1000 pad manufacturing process is controlled using a six-sigma philosophy. Detailed control plans, that include Failure Mode Effect Analysis (FMEA), are used to ensure robust manufacturing. We have implemented quality and manufacturing systems to provide products that are manufactured with a micro-electronic mentality. Each pad is rigorously inspected at each processing step to ensure that customers receive the highest quality products. ISO 9001-2000 certification and MRPII Class A status ensures that high quality products are delivered to customers on time.

PLATEN APPLICATION

Only apply to a clean, dry surface at room temperature. If an appropriate solvent, such as isopropyl alcohol, is used to clean the platen after pad removal, allow the platen to dry completely and return to room temperature before applying a new pad. The adhesion of the PSA to the platen could be weakened if the pad is applied to an unusually cool platen or if solvent remains on the platen.

When applying the pad to the platen, peel the release liner from one edge of the pad, fold the liner back approximately two (2) inches (5cm), align the pad with the edge of the platen and adhere. In one continuous movement, slowly peel the remaining release liner off the pad while pressing the pad down on the platen. The application should be smooth and uniform using even pressure from a pad mounting tool (such as a flat disk or hand roller).

PACKAGING

IC1000 pads should always remain flat. Bending pads during handling can cause wrinkles in the PSA and premature delamination of the release liner. It is recommended that IC1000 pads be stored and transported in their original packaging.

STORAGE

This product should be maintained between 10°C to 24°C (50°F to 75°F) and <50% humidity. Exposure for 6 months or less to conditions between -17°C to 48°C (0°F to 120°F) and/or at relative humidity of up to 100% will not impact product performance as long as the release liner remains intact and attached to the PSA. In the event of exposure outside of the recommended conditions the product may still be acceptable for use; please contact your Rohm and Haas Electronic Materials technical representative for recommendations. In all cases the product should be allowed to return to a temperature between prior to use.

SHELF LIFE

Standard shelf life for IC pads is one (1) year from date of manufacture. It is recommended that IC1000 pads be stored in their original packaging.

PRECAUTIONARY NOTES

Follow all MSDS and label precautions when handling or using this product. Also follow good industrial and hygiene practices when handling or using this product. Keep this and all industrial materials away from untrained personnel.

DISPOSAL

Dispose in accordance with all applicable regulations.

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