

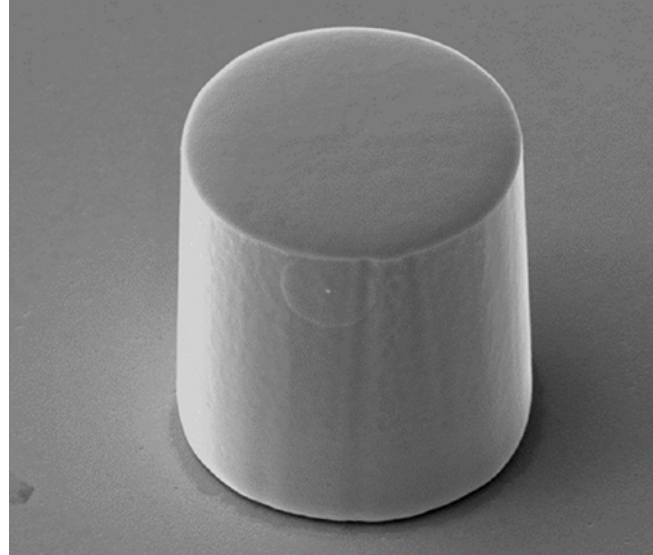
# MICROFAB<sup>®</sup> SC-40 PLUS

Next Generation, High-Speed Copper Plating Process

## High purity deposit with cutting-edge uniformity

Semiconductor fabricators are looking for solutions that deliver high performance and enhanced reliability for advanced packages. MacDermid Alpha's **MICROFAB SC-40 PLUS** next-generation acid copper electroplating process represents a leap forward in semiconductor manufacturing, providing fabricators with a transformative solution that combines precision, efficiency, and ease of use.

With high-speed plating capabilities of up to 2.5  $\mu\text{m}/\text{min}$ , **MICROFAB SC-40 PLUS** delivers a high purity deposit with exceptional within-wafer, within-die and within-feature uniformity and a flat bump profile. The versatile chemistry is suitable for bump, pillar and RDL metallization and is compatible with and without a nickel barrier process for Kirkendall void free stacks.



## KEY FEATURES

- High purity, KV-free deposit with cutting-edge uniformity
- Versatile chemistry for different AR Pillar and L/S of RDL
- ESG Compliant - methanol free
- High-speed plating

MICROFAB SC-40 PLUS delivers a flat bump profile, and is compatible with and without Ni barrier and various solders such as tin silver and pure tin.



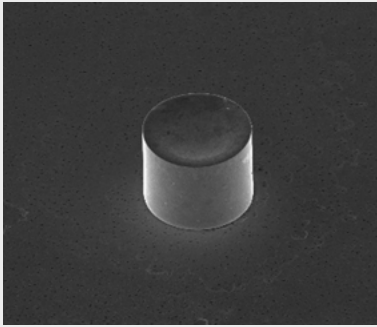
# MICROFAB® SC-40 PLUS

Next Generation, High-Speed Copper Plating Process

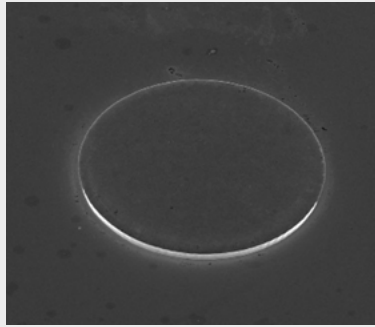
## Innovative copper pillar plating for next-generation packaging solutions

MICROFAB SC-40 PLUS is part of the next generation of MacDermid Alpha's SC portfolio, a range of products and processes with over 10 years in the market. MICROFAB SC-40 PLUS is a highly pure system which eliminates Kirkendall voids. It is suitable for a range of applications including pillar, UBM and L/S RDL.

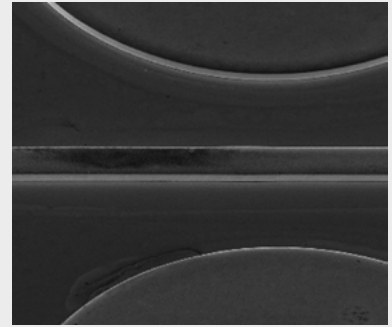
### Bump Shape



Micro-Pillar



UBM

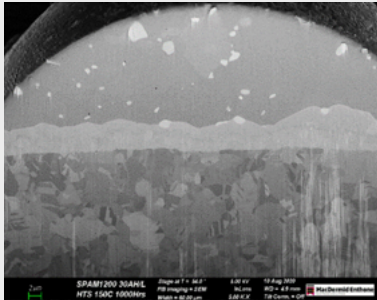


RDL

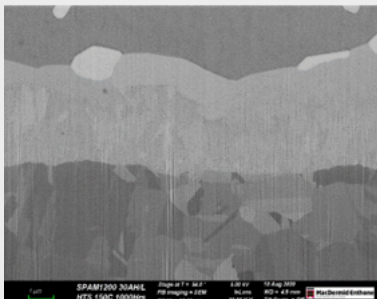
### Reliability Excellence

30AH/L

5000X



20000X



Through the harsh JEDEC reliability test, the copper/solder interface exhibits no voids.

The excellent reliability of MICROFAB SC-40 PLUS is retained even when the bath is aged.

