



MICC[®]

MICRO/NANO-CRYSTALLINE CHROME NITRIDE CERAMIC COATING

A Winning 'Green' Solution for the Semiconductor and Electronics Industries.

WHAT IS MICC[®]?

MiCC[®] (Micro/Nano-Crystalline Chrome Nitride Ceramic Coating) is an environmentally-friendly solution for the Semiconductor and Electronics industries. It is commonly applied on the IC encapsulation, plastic injection, and rubber molding tooling.

It has the following advantages:

- Ultra High Surface Hardness
- Low Friction Coefficient
- High Corrosion Resistance
- Low Surface Energy
- Excellent Adhesion to Base Material
- Low-Deposition Temperature

PROPERTIES OF MICC[®]

| Property | MiCC [®] | Conventional CrN | Conventional H-Cr |
|------------------------|-------------------|------------------|-------------------|
| Typical Thickness (µm) | 2 | 2 – 5 | ≈ 5 |
| Water Contact Angle | ≈ 95 | 70 – 80 | 70 – 80 |
| Friction Coefficient | 0.1 – 0.2 | 0.3 – 0.4 | 0.5 – 0.6 |
| Critical Load | Excellent | Good | Good |
| Film Hardness (GPa) | ≈ 20 | ≈ 15 | 8 – 10 |

COATABLE SUBSTRATES

- Plastics
- Elastomers
- Steel
- Carbide
- Ceramic

APPLICATIONS

- Plastic Injection Molding
- Wear and Tear Parts
- Common Surface Treatment
- IC Encapsulation Molds

LOCATIONS

-  Singapore
-  Shanghai, China