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# Defectivity and containment control technology:

- + Seals & protection foils
- + Surface treatment

...to maximize the performance of the semiconductor industry and its ecosystem



## SOLUTIONS FOR DEFECTIVITY AND CONTAINMENT CONTROL

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Particle and contamination solutions are used to prevent critical machine modules and mechanical assemblies from contamination or damage. Foils protect the micro environment of sensitive equipment by sealing a module airtight. When these foils are removed, no residues are left on the protected part of the module. With our inhouse design and R&D facilities we can find solutions, co-develop products, fully test to match specifications and supply with volume production.

## Advantages

#### **Particle and contamination reduction:**

Options to protect and seal critical areas to increase cleaner production output. Generation of particles can be reduced by low friction materials. Product cleanliness up to Grade 2.

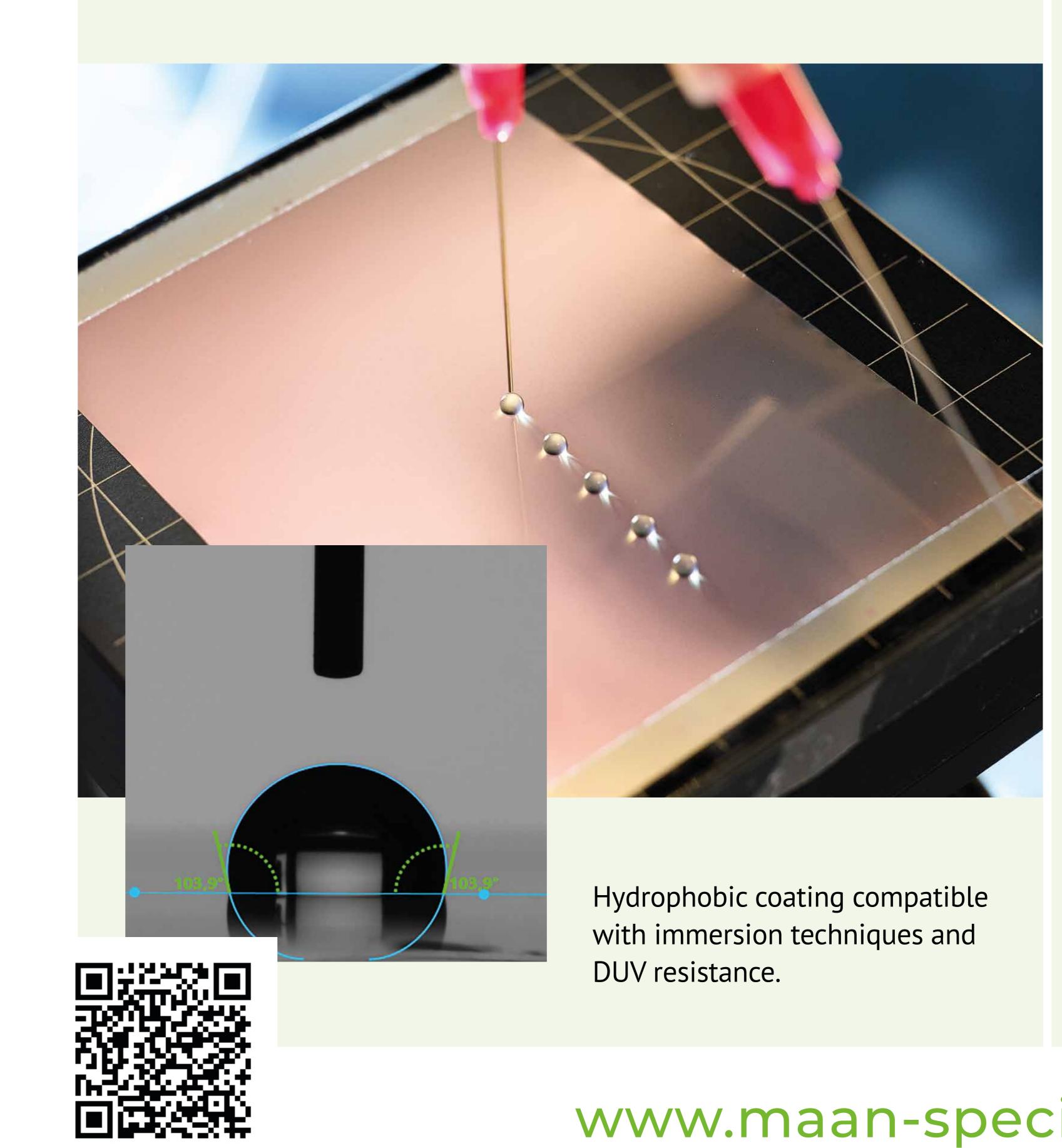
#### Hydrophobic or hydrophilic surface treatment

Coating deposition by plasma (PECVD) deposition to optimize stability and improve system cycle time. E.g. reduction of waterloss on sensors.

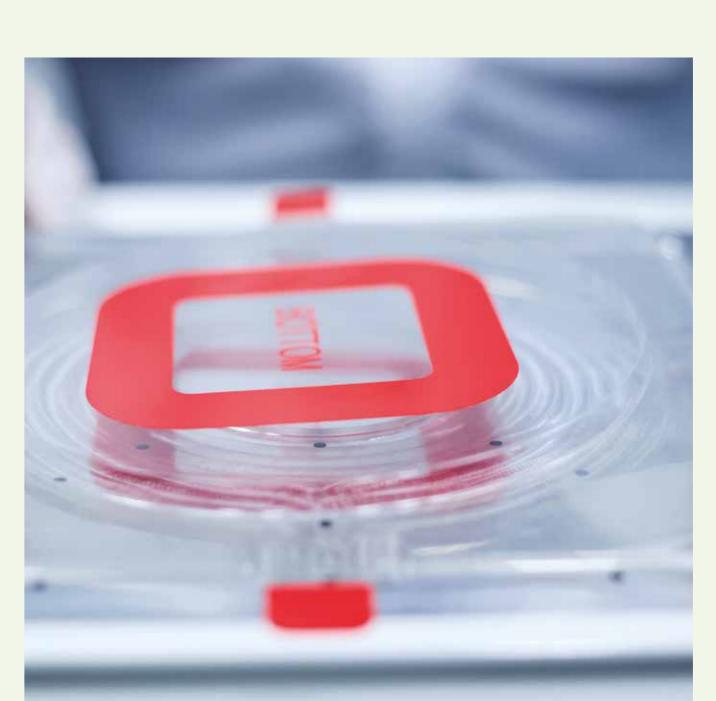
### Low outgassing adhesive with bond strength of choice:

Permanent fixation and removable product solution which leaves no residue behind. Adhesives matches low outgassing for Grade 2.

- Freedom in design, customized product solutions: Co-development options at Maan Special Products. Ultra Thin film solutions where space is limited, either flat or 3D shaped.
- Spot on positioning with our alignment solutions:
- Easy placement of products at the exact location by positioning and handling solutions.



## Examples





**Protection foil:** Protection of critical areas from Particles and Contamination.

Thin Film Seal: Covering and sealing areas with minimal space claim.

## Production specifications

#### General description:

- Customized cleanroom products, ideal for low-medium volumes. Dimensions up to 600x600mm
- Production equipped for Thin layer solutions.
- Multilayer solutions which can include: Substrates layers:

Metals foils: e.g. Stainless steel, Aluminum, Copper, Nickel Polymers films: e.g. PET, PEEK, KAPTON (TEFLON) Low friction materials (reduction of particle generation on

#### Adhesion layers:

moving parts).

The stack's adhesive strengths and release forces are set for specific needs. Products can have a full-surface area adhesive layer or can have adhesive-free zones.

#### Machining/Shaping

Our products can be custom shaped in either 2D or 3D by means of forming. We can reach high precision of 1µm by laser cutting, with minimal thermal influences, leaving the surface of the product unharmed all the way to the edge. The side of the seal or foil can be cut at a specific angle if needed.

### Additional:

When used close to ESD sensitive parts, products can be designed dissipative. Surface treatment: Plasma activation & Plasma coating deposition, hydrophobic and hydrophilic.

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