



PRODUCT BROCHURE

Wet Processing Wafer Chuck

The idonus Wet Processing Wafer Chuck (WPWC) prevents the hidden side of the wafer from being etched. In this way, deep structures can be wet-etched through the visible side without the need to mask the other side.

Wet Processing Wafer Chuck

Product Information

General Information

Etching wafers in liquid etchants involves that the whole wafer is in contact with the etchant. Our wet processing wafer chucks protect the back side of the wafer from being attacked. In this way deep structures can be etched without need to mask the back side. Chucks for any wafer size as well a single chip chucks can be fabricated.

Product Description

The chuck consists of a wafer holder and a clamping ring. The wafer is placed on the holder and fixed by the clamping ring, which is screwed to the chuck. Three precision sealing rings ensure a leak-proof clamping of the wafer. A user defined recess in the holder minimizes the stress on the clamped wafer.

The chucks are fabricated from PEEK, which is resistant to most of the etching solutions used in microfabrication (HF, KOH, TMAH).

For the fabrication of thin membranes a ventilation tube, connecting the enclosed air in the chuck to the atmospheric pressure, can be added. This is highly recommended if the etching solution is heated.

Every application is different. We are pleased to design your custom chuck to improve your results!



Fig. 1: Etching chuck for 100mm and 200mm wafers in PEEK (left) with ventilation tube (right).

Wet Processing Wafer Chuck

Wafer Chuck Carrier

General Information

Wafer chuck carriers for multiple wet processing wafer chucks can be designed to your needs. Most carriers were designed to fit exactly into our clients etching equipment.



Fig. 2: Wafer chuck carrier designed to the clients specifications.

Wet Processing Wafer Chuck

Technical Specifications

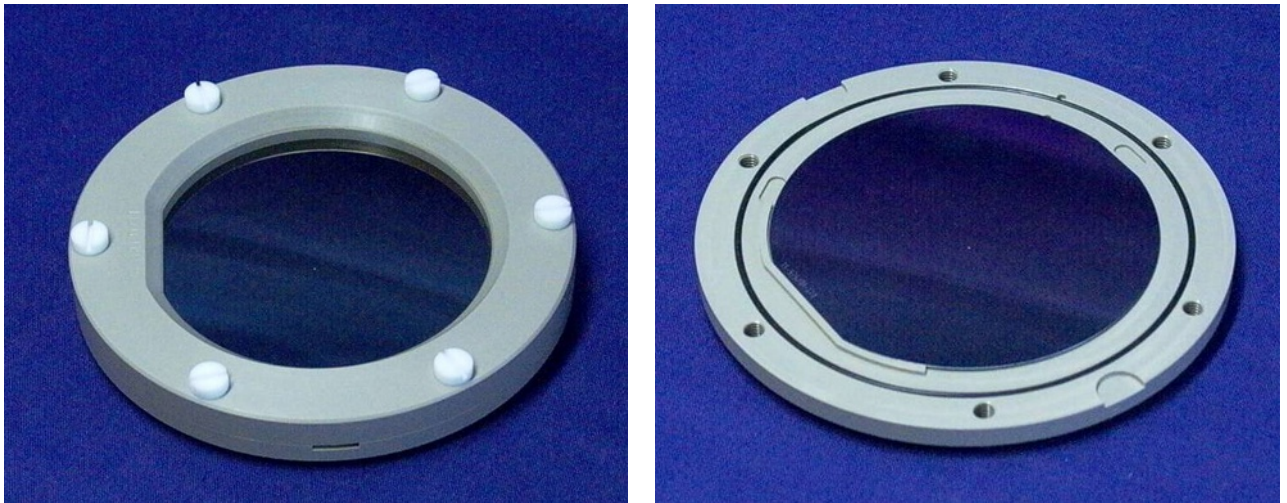


Fig 2: Etching chuck for 100 mm wafers in PEEK

Product Code	WPWC
Wafer sizes	2" to 200mm, custom sizes possible
Etchant compatibility	HF, KOH, TMAH other chemicals upon request
Materials	
Holder	PEEK
Clamping ring	PEEK
Screws	PEEK
Sealing	Depends on used chemicals
Inner dimensions (mm)	
Sealing ring thickness	1.78
Recommended edge exclusion	5
Outer dimensions (mm)	
Diameter	Wafer size +40
Thickness	25
Screws	M6
Wafer thickness tolerance (µm)	Wafer thickness + / - 80
Temperature range (°C)	5 to 150
Configuration (specify at order)	
Ventilation	With or without ventilation tube
Holder	With or without removable holder

Note: Idonus fabricates the WPWC for all wafer sizes. Please ask for specifications.

Note: Idonus reserves the right to change specifications without notice at any time (Version 14.02.2016). Copyright © 2016 Idonus Sarl.

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