

# SUCTION CUPS / Mark free flat Structure

## FF10

### Features and Strengths

Excellent performance for very thin and light weight products  
Mark free

### Examples of use

Semiconductor, Display, Thin Film



### Recommended Lifting Force (Max.)

Model	Volume (cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
FF10	0.01	0.18	0.38	0.55

※ The lifting force above does not include safety factor

### Material Specifications

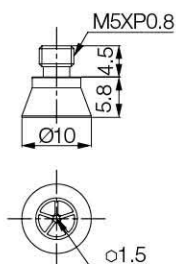
Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Black	-20~110
Silicone	55	Red	-70~200
White Silicone	55	Translucent White	-70~200
White Silicone (FDA)	55	Translucent White	-70~200
High temp. Silicone	50	Blue	-70~280
Conductive Silicone	70	Smoky Black	-45~90
Urethane	60	Dark Green	0~100
Mark Free	75	Black	-10~100

### Material Resistance

Description	NBR	Silicone	White Silicone	High temp. Silicone	Conductive Silicone	Urethane	Mark Free
Wear Resistance	Excellent	Good	Good	Good	Good	Excellent	Good
Oil	Excellent	Poor	Poor	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Good	Good	Fair	Good
Acid	Fair	Poor	Poor	Poor	Poor	Poor	Excellent

### Dimension

[ Unit : mm ]



[With M5M fitting]



## Build an Ordering No.

FF10 -  : Pre-mounted fitting

**1. Suction Cup**

1. Suction cup	Description	Symbol
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, Nitrile (NBR)	FF10-N-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, Silicone	FF10-S-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, White silicone	FF10-WS-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, White silicone (FDA)	FF10-WS-M5M (FDA)
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, High temperature silicone	FF10-HS-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, Conductive silicone	FF10-CS-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, Urethane	FF10-U-M5M
	Mark free and Flat structure suction cup, 10mm diameter, M5 male fitting, Mark free	FF10-A-M5M