Molding Solutions for Wearable Devices

Features

- Highly flexible rubber materials.
- Available in low friction coating providing anti-fouling and luxurious feeling.
- Silicone rubber and coating materials are satisfied with ISO 10993.
- Application : Medical devices

Rubber

		Millable Silicone	Liquid Silicone	FKM
IS010993		✓	✓※1	—
Molding Temperature		120°C～170°C	60°C～120°C	160°C～180°C
Hardness Range		A20 - A80	A20 - A80	A55 - A80
Insert molding with	Metal	✓	✓	✓
	Resin	✓	✓	△※2
	Device	△※2	✓	×

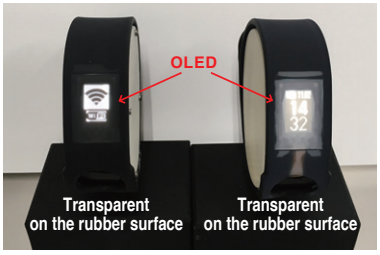
※1 : Non-compliant in molding at 60°C.

※2 : Selection of resins or devices may be able to do insert molding depending on those heat resistance.

Coating Specification

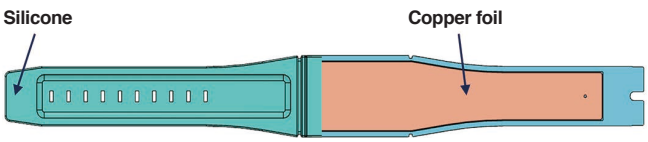
Material	Silicone	Urethane
Method	Spray coating	
Biocompatibility	Satisfying ISO 10993 standard requirements	
Feature	Nice touch feeling	Abrasion-resistant
Abrasion(Jeans 4.9N)	No appearance change @50 times	No appearance change @100 times
High-Temperature Storage (85°C120H)	No appearance change	No appearance change
Low-Temperature Storage (-20°C120H)	No appearance change	No appearance change
High-Humidity Storage (40°C95%RH120H)	No appearance change	No appearance change

Applications



Application : Smartwatch
Material : Device + Silicone

Possible to insert a device without damaging by molding silicone under relatively mild temperature of 60°C～ 120°C.

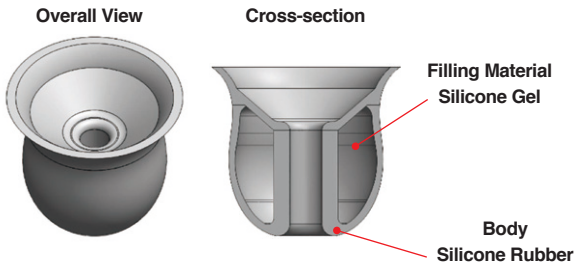


Application : Sensor band for rolled-in prevention
Material : Copper Foil + Silicone

It is possible to improve feeling around the wrist by inserting silicone into metal band.

Application : Smartwatch
Material : FKM

FKM provides more stateliness since specific gravity of FKM is higher than silicone. We have a track record in supplying FKM for a high-end watch band.



Application : Earpiece
Material : Gel + Silicone

It is possible to make an unique soft earpiece by inserting gel to rubber.