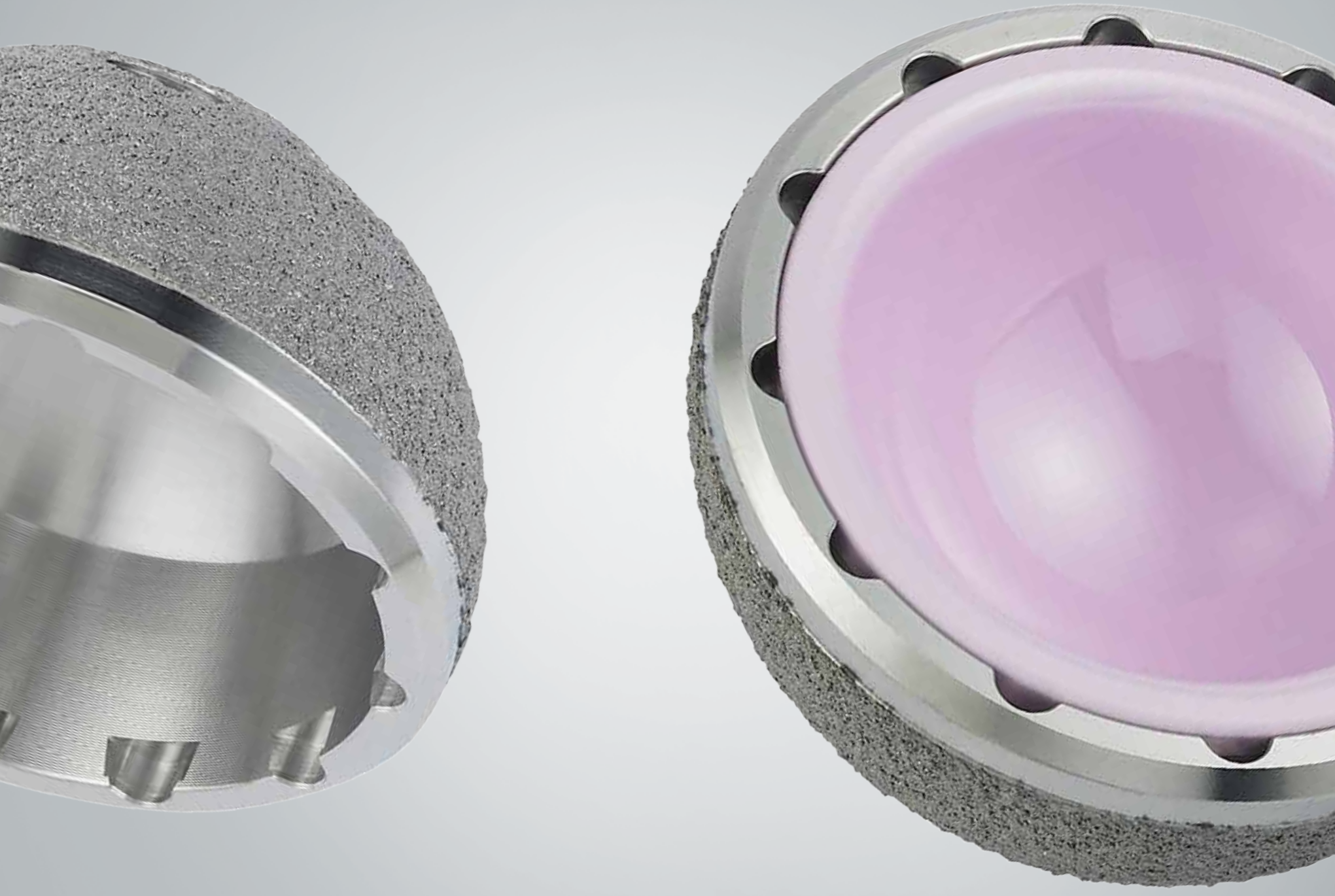

Bencox®
Mirabo Z Cup

INNOVATIVE

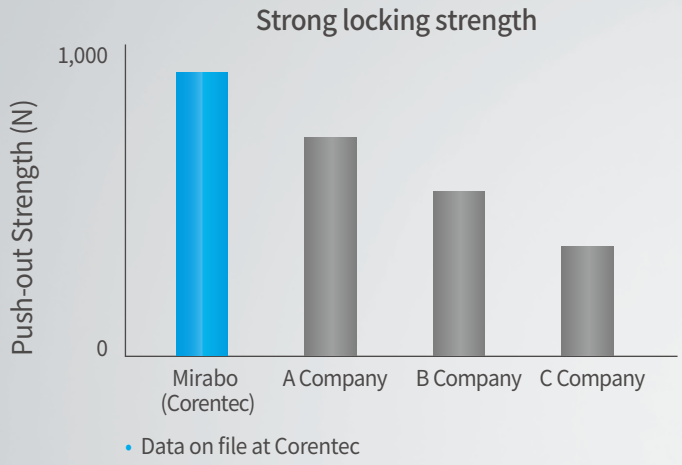
- Secure Locking Mechanism
- Wear Mechanism
- Laser 3D Coating Technology

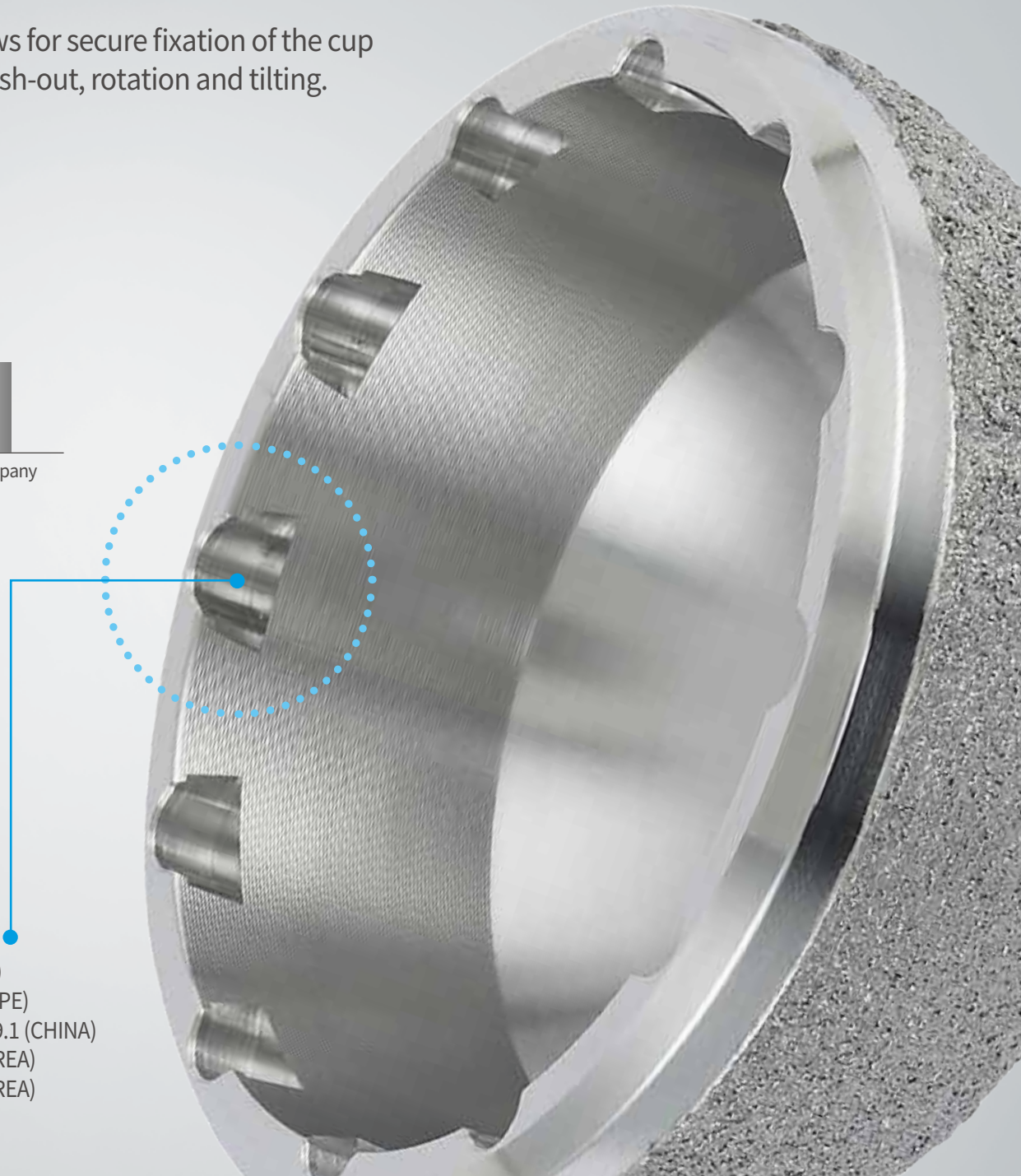


» Secure Locking Mechanism

Locking with PE Liner

The patented* locking mechanism allows for secure fixation of the cup and liner with excellent resistance to push-out, rotation and tilting.





12 anti-rotational tabs

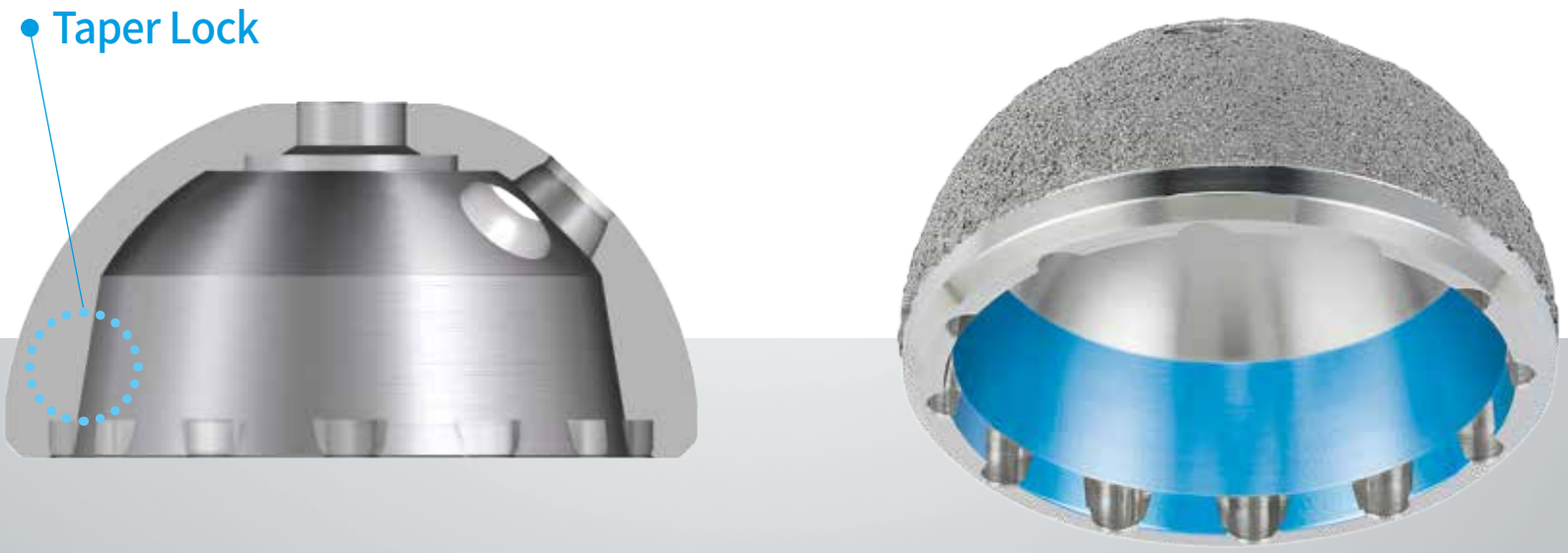
*Patent no. : 9,144,497 (U.S.A)
2 674 132 (EUROPE)
ZL201180067109.1 (CHINA)
10-1268106 (KOREA)
10-1279095 (KOREA)

» Secure Locking Mechanism

Locking with Ceramic Liner

Cup and ceramic insert provide a secure taper locking mechanism while providing a self-locating feature to ease the insert placement.

Increased taper length prevents mal-positioning of the ceramic liner.



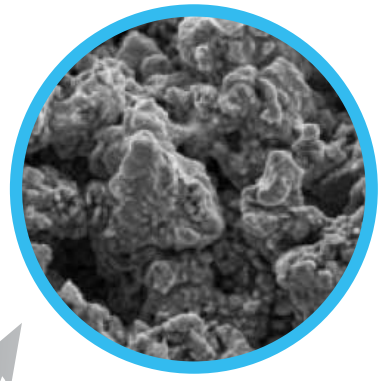
» Surface Treatment

TPS Coating

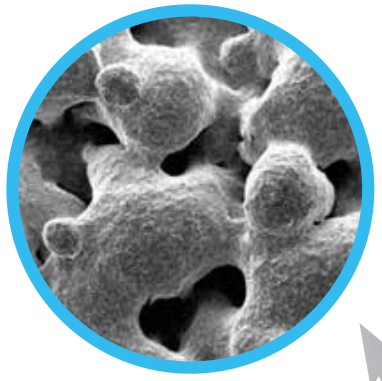
The microporous pure titanium coating with pores of 50-200㎛ diameter and more than 30% porosity leads to direct bone apposition for secondary stability.

Laser 3D Coating

Laser 3D coating technique produces layers of titanium powder using laser beam. The coating with pores of 200-500㎛ diameter and 50~70% porosity leads to bone-in-growth. Increased roughness from the Laser 3D coating allows about 1.4 times stronger initial fixation than Ti Plasma Spray coating.



Mag. 100x

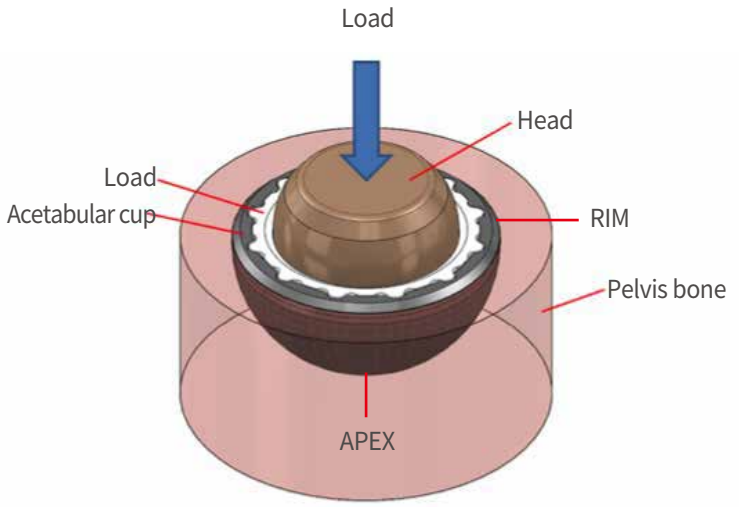


Mag. 100x

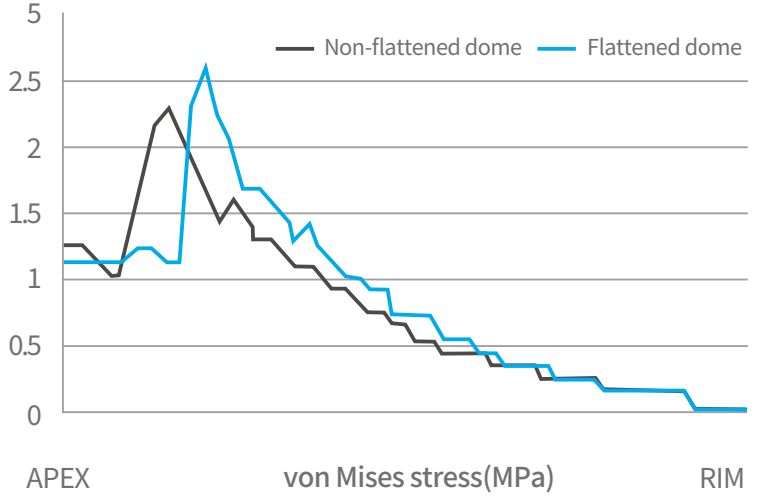
» Secure Peripheral Fixation of Cup

Slightly flattened dome establishes physiological load transfer throughout the periphery of the cup.

FE analysis model



Secure Initial Fixation

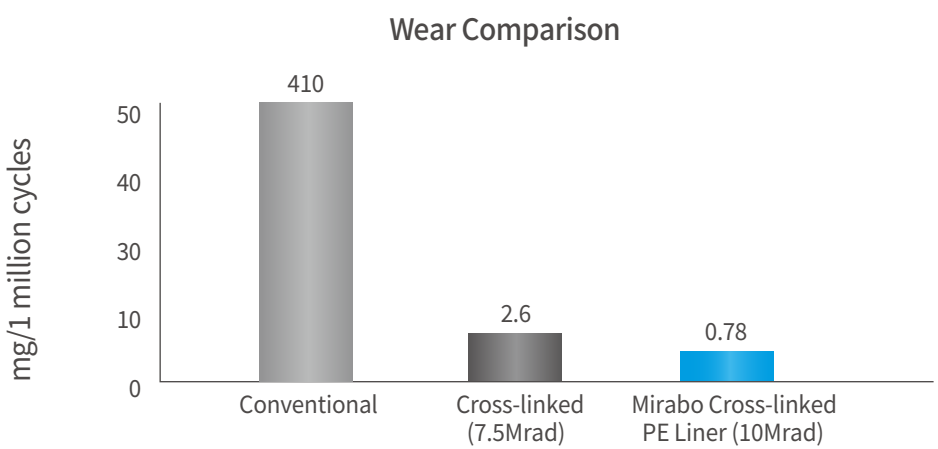


» Bencox® Mirabo PE Liner

Bencox®
PE Liner

Enhanced Wear Characteristics

In-vitro tests showed that Mirabo PE liner exhibited 99.8% less wear than the conventional PE liners.



Standard type

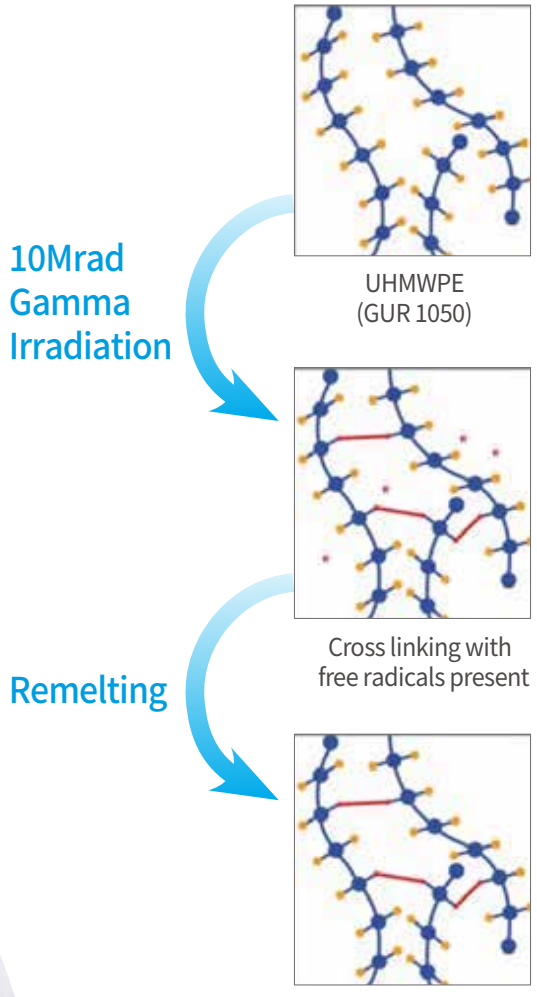
15° Elevated type

» Bencox® Mirabo PE Liner

Bencox®
PE Liner

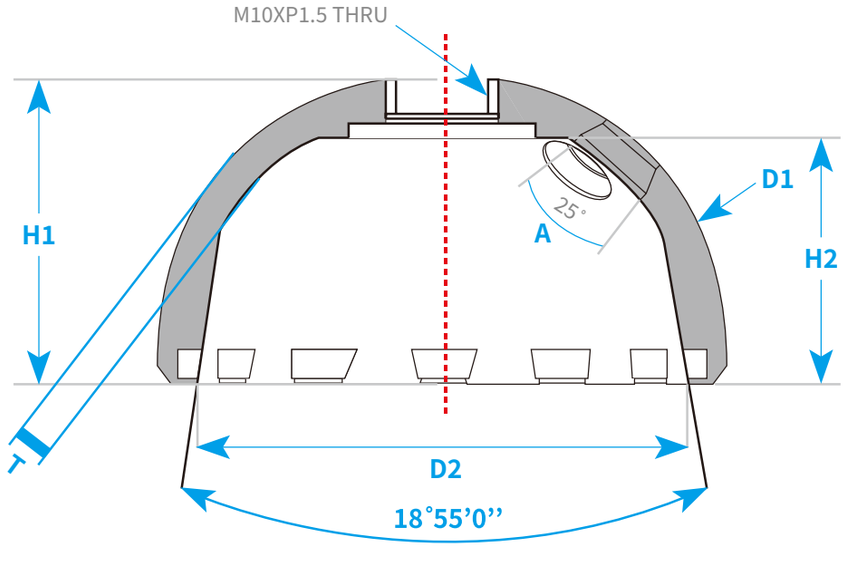
Highly Crosslinked Polyethylene Manufacturing Process

- Compression molded UHMWPE (GUR 1050) rod stock material.
- Gamma irradiated at 10Mrad at room temperature to facilitate cross-linking.
- Following irradiation, the rods are heated above the melting point to eliminate residual free radicals and form additional cross-links.
- PE liners are machined, cleaned, packaged, and EtO sterilized.



Ordering Information

Part No.				Dimensions				
Subject Device		Predicate Device [K172806]		(D1) mm	(D2) mm	(H1) mm	(H2) mm	(T) mm
BENCOX Mirabo Z Cup	Hole Qty	BENCOX Mirabo Cup	Hole Qty					
H1.A23.1044	3	H1.A11.1044	3	44	35	23.5	19.1	3.2±0.5
H1.A23.1046	3	H1.A11.1046	3	46	37	24.8	19.8	3.6±0.5
H1.A23.1048	3	H1.A11.1048	3	48	39	24.8	19.8	3.2±0.5
H1.A23.1050	3	H1.A11.1050	3	50	39	25.8	19.8	4.2±0.5
H1.A23.1052	3	H1.A11.1052	3	52	44	27.9	22.3	3.5±0.5
H1.A23.1054	3	H1.A11.1054	3	54	44	27.6	22.3	3.4±0.5
H1.A23.1056	3	H1.A11.1056	3	56	44	28.0	22.3	3.9±0.5
H1.A23.2056	3	H1.A11.2056	3	56	48	28.5	23.4	3.6±0.5
H1.A23.1058	3	H1.A11.1058	3	58	48	28.9	23.4	3.6±0.5
H1.A23.1060	3	H1.A11.1060	3	60	48	29.9	23.4	4.6±0.5
H1.A23.1062	3	H1.A11.1062	3	62	48	30.8	23.4	5.6±0.5
H1.A23.1064	3	H1.A11.1064	3	64	52	31.8	25.3	4.9±0.5
H1.A23.1066	3	H1.A11.1066	3	66	52	32.8	25.3	5.9±0.5
H1.A23.1068	3	H1.A11.1068	3	68	52	33.7	25.3	6.9±0.5



Bencox®

Mirabo Z Cup

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