

PLASMA BIONICS

MATERIAL COMPATIBILITY WITH AIR PLASMA STERILIZATION

COMPATIBILITY WITH COMMON PACKAGING

The Air Plasma Sterilization process is compatible with commonly used sterile barrier packaging. This includes SMS wraps, Tyvek® pouches, and Tyvek®-Mylar® pouches. The process is not compatible with non-porous cellulosic materials such as paper, cardboard, and textiles (e.g. cloth and linen).

COMPATIBILITY WITH MEDICAL DEVICE MATERIALS

Ozone (O₃) and nitrogen dioxide (NO₂) are powerful oxidants that can be used to sterilize many materials. However, the high oxidation potentials of these sterilants may result in degradation of some materials. The Air Plasma Sterilization process has been tested with different materials commonly used in medical practices including metals, polymers, glass, and plastics. Some mild discoloration or yellowing may occur with some dyed elastomers and plastics. The following lists of compatible and incompatible materials are not exhaustive.

COMPATIBLE MATERIALS

- Metals:** Medical grade stainless steel (300 series), titanium, anodized aluminum, gold plating
- Plastics:** Polyethylene, polypropylene, polycarbonate, polyurethane, polysulfone, Teflon (PTFE), Kynar (PVDF), PVC, ABS, PEEK/PAEK, PBT
- Elastomers:** Silicone*, Fluorosilicone, Viton, Santoprene, Tygon, EPDM
- Other:** Glass, ceramic

**There are numerous blends, grades, and varieties of silicone. Some varieties may show mild degradation after prolonged exposure to the air plasma sterilants. It is advised to test specific blends prior to routine use or request additional information at info@plasmabionics.com.*

INCOMPATIBLE MATERIALS

- Metals:** Mild steel, galvanized steel, brass, bronze, nickel, zinc, copper
- Plastics:** Nylon, Delrin (acetal), polyamide
- Elastomers:** Natural rubber, buna-n (nitrile)
- Other:** Cellulosics (paper, cardboard, textiles)

This list of materials is not exhaustive. For inquiries about compatibility of specific materials, please contact info@plasmabionics.com.

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