Applied Membrane Technology, Inc.

FACTS ABOUT SILGLIDE® COATINGS

SILGLIDE® COATINGS are manufactured from organo-siloxane monomers using AMT's proprietary plasma polymerization process which can be operated in continuous and batch modes. During the manufacturing process, monomeric vapors are converted into covalently bonded polymeric coatings directly on the surface of the substrate. The resulting SILGLIDE® COATINGS are extremely lubricious, submicron in thickness, chemically resistant and biocompatible.

Unlike conventional silicone coatings and hydrogels, AMT's SILGLIDE® COATINGS have very low coefficients of friction, and do not require moisture for lubricity. SILGLIDE® won't dissolve in organic solvents, Unlike most spray or liquid dispersion type coatings, AMT's SILGLIDE® COATINGS won't peel off the substrate surface.

Due to their excellent biomedical compatibility, flexible micro and macro-bend strength and excellent thermal, chemical, and radiation stability, AMT's SILGLIDE® COATINGS are finding numerous biomaterial related applications.

SIZE CAPABILITIES

Choose from the full range of substrate lengths and diameters available from any supplier of tubing, flat substrates or fibers. Most tubing substrates can be coated continuously reel to reel.

EXTENSIVE THERMAL PROTECTION

Thermal stability of SILGLIDE coatings generally exceeds the substrate's thermal stability.

IDEAL FOR MEDICAL APPLICATIONS

Retains substrate mechanical properties, dimensions and performance in harsh environments. Withstands sterilization by

- Autoclave
- Ethylene oxide
- Gamma radiation

SLIPPERY SURFACE

- Removes silicone tack
- Ideal for catheter lubricity enhancement
- Limit oligomer diffusion into blood or tissue

CHEMICALLY STABLE COATINGS

- Resists attack by most organics. Stable to Saline environment

ADHESIVELY BONDABLE

- Bonds well to other materials via most adhesives

CHEMICALLY BONDED TO TUBING/FIBER

- Applied uniformly to entire surface
- Covalently bonded
- Does not strip or peel
- Can be applied to polyurethanes, silicones, fluoropolymers, hydrocarbon polymers, polyamides, polyimides, and other thermoplastic elastomers such as PVC, polyesters and polycarbonates

SURFACE ACTIVATION SITES

SILGLIDE® coatings can be processed with unique surface bioactive binding sites for subsequent attachment of Heparin, Peptides or Monoclonal antibodies.

BIOCOMPATIBILITY

Generally suitable for invasive medical applications:

1. USP Class VI Biological Test for Plastic Materials
   - SYSTEMIC INJECTION TEST
   - INTRACUTANEOUS TEST
   - 14-DAY IMPLANTATION TEST
2. USP 14-DAY INTRAMUSCULAR IMPLANTATION TEST
3. CYTOTOXICITY EVALUATION/MEM Elution
4. Human Red Blood Cell HEMOLYSIS TEST

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