Durable and Cost-Efficient Industrial Polymer and Metal Coatings

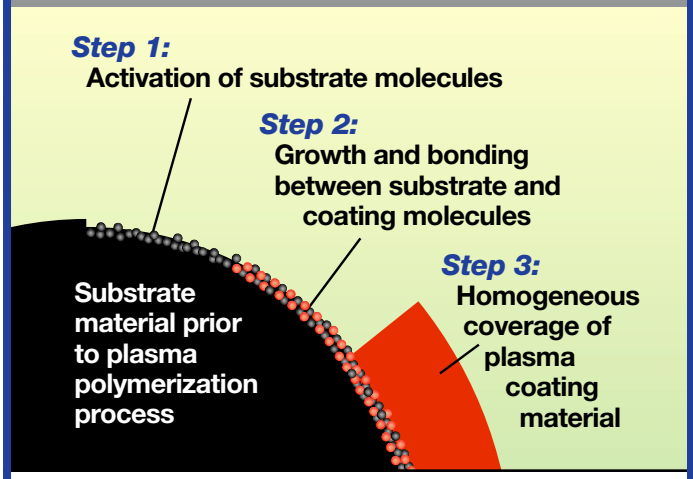
Unmatched Performance and Wide Variety of Industrial Coatings

A worldwide network of research and development resources assures the latest technology for customized cost-efficient solutions to coat fibers, tubing, wire and small precision components.

AMT's innovative polymer and metal coatings and alloys are manufactured in a unique plasma coating process. Monomeric vapors are converted into covalently bonded coatings directly on the surface of passing tubings/fibers or small precision components to meet your specific surface properties improvement goals. This technology assures extreme durability of coatings — **no peel-off** — and no change of surface properties on aging. A wide variety of surface property improvement goals can be met such as:

- **Reduction of friction/enhancement of slip**
- **Enhancement** of bonding capabilities
- **Antibacterial properties** effective against microorganisms and viruses
- **Catalytic activity**
- **Change of electrical properties**
- **Resistance to organic solvents**
- **Well-bondable** to a wide variety of materials such as polyurethanes, silicones, fluoropolymers, polyamides, polyimides, PVC, polyesters and polycarbonates
- **Flexible micro- and macro-bend strength**
- **Prevention of corrosion**
- **Excellent thermal and chemical stability**

Plasma Polymerization Coating Process

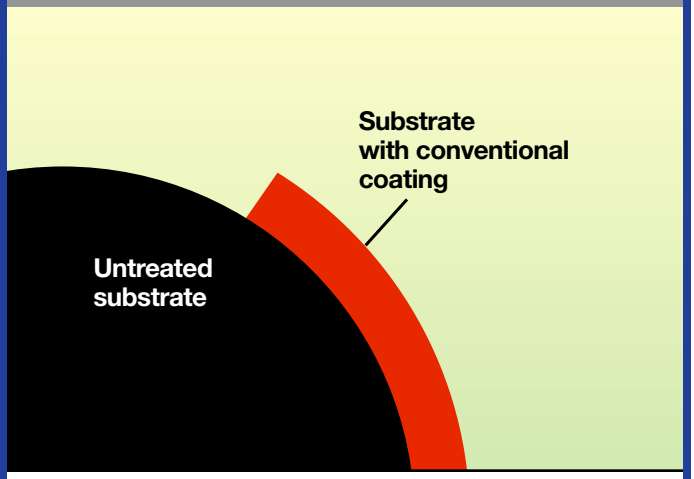


Advantages:

- Excellent bonding — no peel-off
- Unlimited combination of substrates and coating materials

VS.

Conventional Coating



Disadvantages:

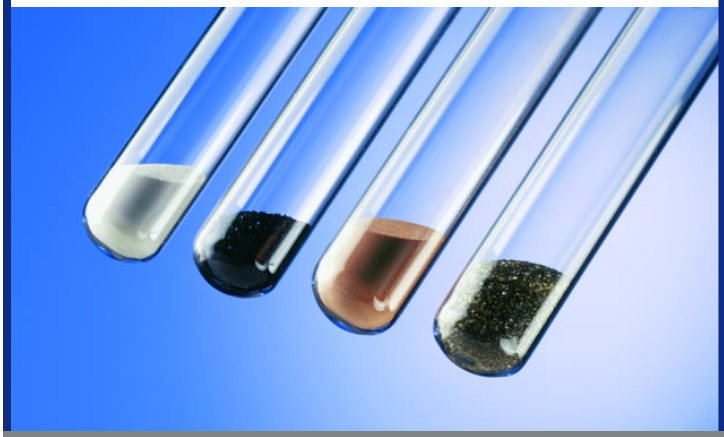
- Poor bonding — risk of peel-off
- Bonding limited to certain substrates and coating materials

Industrial Applications

AMT's innovative polymer & metal coatings, alloys and metal blends can be applied on microporous ceramic tubes, polymeric fibers and films, ceramic powders, aerogels, zeolites and other substrates.

The **enhanced surface properties** of such substrates provide unique solutions in applications such as fuel cells, chemical syntheses, microreactors, chromatographic separations and sensors.

- Platinum and silver coated surfaces with **antimicrobial properties** can be used in numerous applications such as air or water treatment.
- Noble metal coated ceramic and polymeric membranes assure **high catalytic activity** due to increased surface area. Novel combinatorial based metal blends and alloy coatings can be tailored for specific catalytic applications on a nanometric scale.
- Proprietary plasma treatment of fluoro-polymers or other **difficult-to-bond materials** can provide long-term solutions for bonding problems.

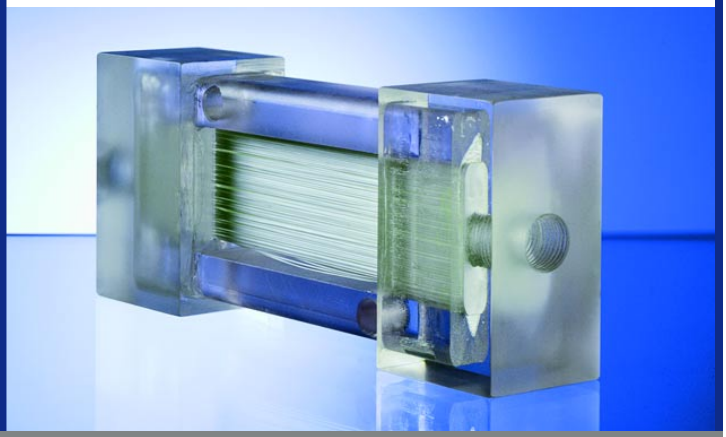


Rapid Development, Prototyping and Scale-Up for Customized Solutions

AMT leverages its international research and development resources to identify and rapidly develop the **best industrial coating technology** for your specific needs. AMT has extensive expertise in supporting industrial product development programs including design and engineering of scale-up equipment for tailored coating solutions.

Turn-Key Coating Solutions Available to Reduce Your Manufacturing Costs

AMT offers a **wide variety of turn-key coating solutions** and is well-known for its cost-efficient large scale coating processes. Select your turn-key solution and benefit from the resulting savings.



Applied Membrane Technology, Inc.
11558 Encore Circle ■ Minnetonka, MN 55343
(+1) 952-933-5121 ■ fax (+1) 952-933-8839 ■ email: amtechnology@appliedmembranetech.com

Visit our interactive website: www.appliedmembranetech.com