

Educational Resources from Swagelok

Materials Science Tech Talk



There are many important factors to consider when specifying materials for instrumentation lines, hydraulic power, chemical injection, deluge systems, and other equipment used in the oil and gas and chemical refining markets. You want to select materials that will last in challenging end-use environments, but you also want to optimize your costs. Swagelok's materials science experts can help.

 **Tuesday, September 21ST**

 **1 pm EDT**

Register for our upcoming free, **60-minute webinar** led by **Dr. Robert Bianco**, senior materials scientist and technical lead for Swagelok's Additive Manufacturing Program, to better understand how to choose the proper materials to keep your fluid systems leak-tight and operating efficiently. Additionally, you'll learn how specific alloys resist corrosion, how different materials behave, and how industry standards impact your material options.

Topics covered include:

- Introduction to high-performance alloys
 - Alloy terms and definitions
 - Standard composition of alloys
- Alloy performance in corrosive environments
 - Common forms of corrosion and examples
 - Prevention methods
- Selection of special alloy fluid system components
 - Alloy development and evolution
 - Focused applications
- Alloys for use in specific corrosive media
 - Alloy behavior in acids and other corrosive environments

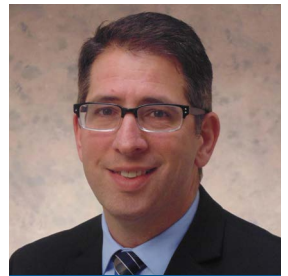


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About the Speaker

Dr. Robert Bianco, Senior Materials Scientist, joined Swagelok in May of 2017 as a materials expert and technical lead for Swagelok's Additive Manufacturing Program.

He has worked for nearly 30 years in an applied R&D organization finding opportunities for providing value-added solutions to customers such as developing materials for unique applications and protecting materials from degradation in their environments.



Dr. Robert Bianco
Senior Materials Scientist

Bob earned a B.S., M.S., and Ph.D. in Metallurgical Engineering from The Ohio State University. His technical background and expertise includes advanced manufacturing such as 3D printing, development of high-temperature structural materials, materials characterization and performance testing, failure analyses/investigations, and surface modifications for improving corrosion resistance (electroplating and CVD/diffusion coatings). Bob has taught as an adjunct professor at the University of Connecticut Institute of Materials Science on the environmental durability of aerospace materials.

Bob is a Fellow with the American Society of Materials International (ASMI) and is the Swagelok representative on special committees at ASME, SAE, and SME related to alloy development and the introduction of pressure-containing components fabricated by 3D printing.

