

## TO BE SO GOOD, our customers BRAG about us!

Parts utilized in the medical industry demand precision, quality and compliance to the highest degree.

Techmetals is certified to provide a variety of metal finishes including both titanium and aluminum anodizing, passivation, medical grade chrome plating, laser etching and much more — all in **ONE LOCATION!**

**We truly are a one-stop-shop for medical coating solutions.**

### ■ Alkaline Zinc

ASTM B 633

### ■ Anodize

MIL-A-8625  
AMS 2469  
AMS 2471  
AMS 2472  
ASTM B 580\*

### ■ Brush Plating

Nickel, Cobalt, Copper  
MIL-STD-865C (USAF)  
AMS 2451

### ■ Copper

AMS 2418

### ■ Chemfilm

MIL-C-5541  
AMS 2473  
MIL-DTL-5541 (Hex)  
MIL-DTL-5541 (Hex Free)  
BAC 5719

### ■ Cadmium

QQ-P-416  
AMS QQ P 416

### ■ Electropolish

ASTM B 912

### ■ Gold

ASTM B 488

### ■ Hard Chrome

AMS QQ C 320  
AMS 2406  
AMS 2460  
ASTM B 177  
FED-QQ-C-320  
MIL-DTL-23422  
MIL-STD 1501 F

### ■ Nickel Boron

AMS 2433  
ASTM B 607\*

### ■ Nickel/EN

AMS C 26074\*  
AMS 2404  
AMS 2405  
ASTM B 733  
MIL-C-26074  
MIL-DTL-32119

### ■ Nickel / Sulphamate

AMS 2403  
AMS 2424  
AMS-QQ-N-290  
FED-QQ-N-290  
Union Carbide J5 1396

### ■ Passivation

AMS QQ P 35  
AMS 2700  
ASTM A 380

ASTM A 967

ASTM F86\*  
FED-QQ-P-35

### ■ Silver

AMS 2410  
AMS 2411  
AMS 2412  
ASTM B 700  
QQ-S-365

### ■ Tin

ASTM B 545\*

### ■ Titanium Coating

AMS 2488

### ■ Zinc Nickel

AMS 2417  
BAC 5680  
BAC 5637

### ■ PVD / Thin Film Vacuum

AMS 2444  
TiN, DLC, TiCN, CrN,  
AlTiN, AlTiCrN, ZrN

### ■ Other

MIL-STD-186  
MIL-STD-171  
BAC 5625  
Cobalt, Tungsten,  
Nickel PTFE, Diamond

### ■ Other

Coatings, OptaKoat,  
Hard Chrome, Replace-  
ments & more

### ■ Testing

— Coating Weight  
— Adhesion Scratch  
& Chisel  
— Corrosion/Salt Spray  
& Porosity  
— B12 Adhesion Bend  
— Thickness & Magnetic  
— Eddy Current  
— XRF Micro-hardness  
— Water Immersion  
Bond Strength-tape  
— Metallography &  
Microstructure

*Nadcap™ Accredited Processes are Shown in Blue.*

*Other Nadcap™ Processes may be available upon request. \*Nadcap™ Accredited "other" under scope.*



## Commitment to Quality

Our services are ensured through compliance with the industry's most stringent testing facilities such as **Nadcap Chemical Processing, Nadcap Coatings, ISO 9001:2015** and **ISO 13485:2016** to name just a few.

The coatings and processes we offer have all undergone and passed biocompatibility testing for bioburden, cytotoxicity and wear resistance — with our MedaDize finish meeting even aerospace requirements.

Techmetals takes great pride in assisting our customers with metal plating solutions that fit both their requirements as well as their budgets. You can depend upon Techmetals time and again, as our medical processes run **24-hours a day**.

Combined with our **quick turnaround times** and over **50 years of experience**, it is easy to see why we are considered the industry leader when it comes to metal coatings and engineered finishes.



**ISO 13485:2016**  
**ISO 9001:2015**  
**ATF-FFL**



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**www.techmetals.com**



## Medical Coatings & Processes

**ISO 13485:2016**



- Aluminum Anodize
- Titanium Anodize
- Passivation
- Electropolishing
- TM-Rx
- PVD
- Laser Etching
- & More

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# Medical Coatings & Processes

## BioBrite, Medical Validated Electropolish

- Stainless Steels 300, 400 Series, PH and Aluminum
- Meets ASTM B912, ASTM 380 and ASTM A967 requirements



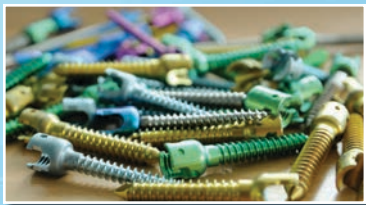
## MedaPass, Medical Stainless Steel Passivation

- Both Citric & Nitric Passivate
- Small to large part capacity
- Medically validated lines and processes
- Accredited industry specifications



## MedaDize, Color & Gray Titanium Anodize

- Validated titanium anodize (compatible)
- SAE AMS 2488 type II gray
- Standard colors on chart & Custom colors available



## Aluminum Anodize & Hard Coat

- FDA compliant – medically validated processes
- NSF approved colors available
- Custom and standard colors
- OxyTech processes for critical parts



## TM-Rx, Medical Grade Chromium Coating

- Can be applied to ferrous and non-ferrous metals – steel, stainless, aluminum and other materials
- Wear reduction and anti-galling coating – extreme hardness
- Low coefficient of friction, lubricity and corrosion protection
- Medically validated lines and processes



ISO 10993-1

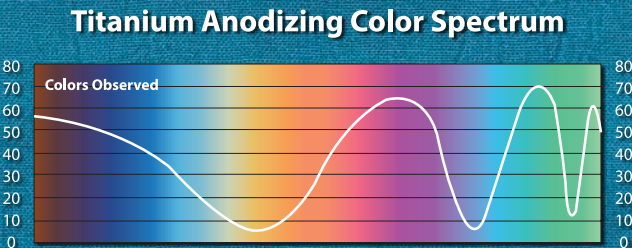
# Techmetals MedaDize

Medical validated Titanium anodize (MedaDize) is commonly used to create a unique range of colors for titanium parts – without the use of harsh dyes or brighteners.

The anodizing process basically changes the oxide layer on the base metal, which changes the way light reflects off of the surface. This allows for a wide spectrum of color possibilities that will not fade, discolor or change over time.

Techmetals offers the following engineered color options for it's Titanium anodize. Although customized color schemes can be produced upon request provided they fall within the titanium anodize color spectrum.

TM-0079 Aqua	TM-0064 Magenta	TM-0092 Dark Blue
TM-0003 Green	TM-0001 Gold	TM-0005 Seafoam Green
TM-0096 Vector Purple	TM-0004 Light Blue	TM-0093 Bronze
TM-0002 Medium Blue	TM-0134 Teal	AMS 2488 Type II Gray



All Techmetals MetaDize colors have a high and low acceptance standard. Standards can be provided.



# Medical Coatings & Processes

## TechCoat PVD Coatings

- Extreme hardness and durability – low coefficient of friction
- Micro hardness 1,800 to 3,500 (Hv)
- Medically validated processes (\*)
- TechCoat 100 (TiN)\*
- TechCoat Med 100 (TiN)\*
- TechCoat DLA 200 (DLC)\*, 1-5 Microns
- TechCoat 300 (AlTiN)
- TechCoat 345 (AlTiN)\*, Medical
- TechCoat 400 (CrN)\*
- TechCoat 500 (ZrN)
- TechCoat 600 (AlTiCrN)



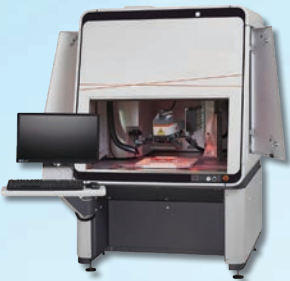
## Plating Solutions

- Nickel
- Gold
- Chrome
- Platinum
- Silver
- and Others



## Other Processes

- Laser Etching
- Dark Marking
- Blasting
- Grinding
- Ultrasonic Cleaning
- Research & Development
- Prototyping
- Testing
- and More



## Aluminum Anodize Color Imaging