

## Wieland Portalloy 54 PFM Alloy

Category : Metal , Nonferrous Metal , Precious Metal , Gold Alloy , Palladium Alloy

### Material Notes:

Gold-palladium ceramic alloy  
Applications: crowns, short span bridges, long span bridges, telescopic and milling work, removable partials  
Dental

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Wieland-Portalloy-54-PFM-Alloy.php](http://www.lookpolymers.com/polymer_Wieland-Portalloy-54-PFM-Alloy.php)

Physical Properties	Metric	English	Comments
Density	13.8 g/cc	0.499 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	260	260	HV5/30; after porcelain firing
	280	280	HV5/30; hardened
Tensile Strength, Yield	580 MPa @Strain 0.200 %	84100 psi @Strain 0.200 %	after porcelain firing
	649.8 MPa @Strain 0.200 %	94250 psi @Strain 0.200 %	hardened
Elongation at Break	5.0 %	5.0 %	hardened
	6.0 %	6.0 %	after porcelain firing
Modulus of Elasticity	120 GPa	17400 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	13.8 μm/m-°C	7.67 μin/in-°F	
	@Temperature 25.0 - 500 °C	@Temperature 77.0 - 932 °F	

Component Elements Properties	Metric	English	Comments
Gold, Au	54.2 %	54.2 %	
Indium, In	9.0 %	9.0 %	
Palladium, Pd	31 %	31 %	
Silver, Ag	4.8 %	4.8 %	

Processing Properties	Metric	English	Comments
Processing Temperature	849 °C	1560 °F	Preheating Temp.
Melt Temperature	1100 - 1240 °C	2010 - 2270 °F	
Casting Temperature	1400 °C	2550 °F	

Descriptive Properties	Value	Comments
Color	white	

## Contact Songhan Plastic Technology Co.,Ltd.

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