



Surface treatment services – specification

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Item	Type of surface treatment	Chinese name	Color	Enhanced material	Properties	Hardness (HV)	Thickness (μm)	Coefficient of friction	Highest temperature (°C)
1	Anodizing	氧化	White	Aluminum	Improve corrosion resistance, hardness, wear resistance Promote electrical insulation, heat resistance	380 ~ 600	3~5	0.17	500
2			Black	Aluminum			3~5		
3			Yellow	Aluminum			3~5		
4	Nitriding	氮化	Golden yellow	Titanium	Strong coating adhesion Excellent degree of surface finish	2400	1~7	0.35	600
5			Silver	Chromium	Self-lubricating ability with high degree of surface finish High resistance to wear, corrosion, and oxidation resistance Strong coating adhesion	1800	1~7	0.3	700
6			Reddish purple	Aluminum-Titanium alloy	Resistant to wear and high temperature Enhanced hardness and toughness Strong coating adhesion	3300	1~4	0.4	800
7			Silver/Gold	Aluminum-Chromium alloy	Easier to mold as injection adhesion is reduced Good wear-resistant, corrosion resistance	3000	1~7	0.4	600
8	Carbonitriding	碳氮化	Bluish grey	Titanium	High wear resistance, but low coefficient of friction	3700	1~4	0.2	400
9	Multi-layer carbonitriding	多層碳氮化	Reddish copper	Titanium	Excellent adhesion of the coating High toughness, and wear resistance	3200	1~4	0.2	400
10	QPQ	氧化/氮化/滲碳	Black	Stainless steel	Excellent corrosion resistance, surface hardness, dark color	1100	1~3	0.35	600
11	Hard coating	電硬黑	Black	Aluminum	Enhanced surface hardness, corrosion resistance Enhance the degree of surface finish/smoothness	1200	8~10	0.3	600
12			Yellowish white	Aluminum			8~10		
13			Black	Steel			8~10		
14	Blackening	發黑/碳黑	Black	Steel	Corrosion resistant	1000	2~4	0.3	500
15	Nickel plating	普通沉鎳	Bright yellow	Aluminum	Nickel layer gives higher hardness Promote corrosion resistance, wear resistance Much smoother surface	370	3~5	0.2	85 ~ 90
		Copper		4~6					
		Steel		4~6					
16	Thickened Nickel plating	加厚沉鎳		Aluminum, Copper, Steel			400		
17	Decorative Chrome coating	裝飾鉻	Silvery white	Steel	Enhance the degree of surface finish Corrosion resistant	800	3~5	0.2	600
18	Hard Chrome coating	硬鉻							
19	Gold plating	鍍金(鎳+金)	Golden yellow	Aluminum, Copper	Enhance the degree of surface finish Sharper and more attractive color	500	1-2um+10u" (~0.0002-	0.2	85 ~ 90
20	Tungsten Carbide coating	碳化鎢碳膜	Black	Stainless steel	Low coefficient of friction with good lubricity Anti-impact and excellent resistance to fatigue	3000	1~4	0.1 ~ 0.2	400