



埃宸金属和陶瓷涂层性能说明书(第六版)
ASEN Metal & Ceramic Coatings Data Sheet Rev.6

涂层/构成 (Coating/Ingredient)	可喷涂基材 (Coating Base Material)	硬度(Hardness)		附着力 (Adhesive Force)	密度 (Density)	孔隙率 (Porosities)	弹性系数 (Elasticity Coefficient)	弯曲强度 (Bending Strength)	线膨胀系数 (25°C) (Linear Dilatability)	热传导率 (Thermal Conductivity)	电导率 (Electrical Conductivity)	耐高温性能 (Heat Resistance)	综合性能 (General Performance)	应用范围(Application)
		HRC	HV											
氧化铬Cr ₂ O ₃	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	70	1150	> 3.2	5.2	< 5.0	9.9x10	26.5	6.4x10 ⁻⁶	2.6-2.8	> 1.8x10 ⁻⁷	650	耐磨损, 耐酸碱和醇类腐蚀; 可光洁度可加工镜面级 Wear resistance, anti acid, alkali and alcohol corrosion resistance; mirror-grade roughness	激光雕刻陶瓷纹辊, 石油柱塞杆, 泵体密封 环Laser engraving ceramic roller, oil plunger rod, pump body seal ring
氧化铝Al ₂ O ₃	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	64	800	> 4.2	3.9	< 4.0	6.2x10	11.3	5.7x10 ⁻⁶	18-25	> 10.0 ⁻⁹	1200	绝缘, 耐磨损, 耐高温氧化, 耐酸碱; 光洁度可加工镜面级 Insulation, wear resistance, high temperature oxidation resistance, acid and alkali resistance; mirror-grade roughness	电晕辊, 静电卡盘, 半 导体工具, 生物医学植 入物Corona rolls, electrostatic chucks, semiconductor tools, biomedical implants
氧化铝钛 60(Al ₂ O ₃)&40(TiO ₂)	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	66	850	> 6.3	3.7	< 2.5	7.9x10	15.2	6.0x10 ⁻⁶	12.6-23.4	> 10.0 ⁻²	650	防静电, 结合强度高, 耐磨 损; 光洁度可加工镜面级 Anti-static, strong bonding strength, wear resistance; mirror-grade roughness	纺织纤维线棍, 轴套, 涂布辊, 分切机用导辊 Textile fiber roller, shaft sleeve, coating roller, guide roller for slitter equipment
氧化钛TiO ₂	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	50	510	> 5.5	4.3	< 2.0	6.7x10	13.1	6.0x10 ⁻⁶	1.9-10.3	> 10.0 ⁻²	580	导电, 防静电, 涂层孔隙率 低, 光洁度可加工镜面级 Conductive, anti-static, lowest coating porosity; mirror-grade roughness	涂布辊, 靶材, 各类抗菌 工件 (需搭配紫外线使 用) Coating roller, target material, all kinds of anti-bacterial parts (need to be used with ultraviolet light)
碳化钨Tungsten Carbide	钢, 铝 (Steel, Aluminum)	70	1100	> 7.1	13.7	< 1	18.5x10	80.7	7.8x10 ⁻⁶	6.6-9.7	> 5.0x10 ⁻⁶	550	耐磨性极好, 硬度高, 耐腐 蚀; 光洁度可加工超镜面级 Excellent wear resistance, high hardness, corrosion resistance; ultra-mirror level roughness	精密研磨的主轴 Precision grinding roller
不锈钢(316L) Stainless Steel (316)	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	25	260	> 7.1	7.9	< 5.0	12.4x10	69.2	17.3x10 ⁻⁶	15.1-20.3	> 1.4x10 ⁻⁶	1000	耐腐蚀性能优异, 耐持续高温; 光洁度可加工镜面级 excellent Corrosion resistance, continuous high temperature resistance; mirror-grade roughness	碳纤维辊, 表面需要耐 腐蚀处理的工件 Carbon fiber roller, parts need corrosion resistant treatment
镍Nickel	钢, 铝, 碳纤维, 尼龙 (Steel, Aluminum, Carbon Fibrer, Nylon)	22	250	> 7.1	8.9	< 5.0	28.7x10	107.3	15.3x10 ⁻⁶	85.2-91.7	> 14.45x10 ⁻⁶	550	导电性能好, 耐腐蚀性能优异 (可以在强酸强碱工况下长期使 用) Good electrical conductivity, excellent corrosion resistance (used for a long time under strong acid and alkali condition)	半导体零件, 表面需要 耐腐蚀处理的工件 Semiconductor parts, parts need corrosion resistant treatment