

All-Spec Stainless Steel Anti-Magnetic Precision Tweezers

Description

The All-Spec 342 Series of ESD-safe precision tweezers are designed for the electronic industry, laboratory and medical applications, in moderately aggressive chemical environments. The tweezers are made of low carbon austenitic stainless steel, and they also contain chromium, nickel, and molybdenum as additional alloying elements. They are non-magnetic, and they have good corrosion resistance to most chemicals, salts, and acids.



Product Specifications

Composition

| Component | Wt. % |
|-----------|-------------|
| C | ≤0.03 |
| P | ≤0.045 |
| Mo | 2.5 - 3.0 |
| Si | ≤1.0 |
| S | ≤0.03 |
| Ni | 12.5 - 15.0 |
| Mn | ≤2.0 |
| Cr | 17.0 - 19.0 |
| Fe | 60 - 65 |

Mechanical Properties

| | |
|----------------------------|-----------------------|
| State | Annealed |
| Density | 8.0 g/cm ³ |
| Hardness HB30 | ≤215 |
| Hardness Rockwell B | 79 |
| Tensile Strength, Ultimate | 500 - 700 MPa |
| Tensile Strength, Yield | 290 |
| 0.2% Yield Stress | ≥200 MPa |
| Elongation Break | 40% |
| Modulus of Elasticity | 200 GPa |

Thermal Properties

| | |
|---|------------------|
| Coefficient of Linear Thermal Expansion between 20°-100° C (68°-212° F) | 16.0 E-6/°C |
| Coefficient of Linear Thermal Expansion between 20° - 300° C (68°-572° F) | 17.0 E-6/°C |
| Specific Heat Capacity | 0.50 J/(g.K) |
| Thermal Conductivity | 15 W/(m.K) |
| Continuous Use Temperature | 350° C (662° F) |
| Maximum Service Air Temperature | 925° C (1697° F) |

Electrical Properties

| | |
|-------------|-------------------------------|
| Resistivity | 0.75 x 10 ⁴ ohm/cm |
|-------------|-------------------------------|

Products

Swiss Premium High Quality Tweezers

| Part No. | Description |
|-------------------------|---|
| 342-005 | Style 00-SA Tweezers with Tapered Strong, Flat Edge Tips, 4-3/4" Long |
| 342-008 | Style 00D-SA Tweezers with Tapered Serrated Tips, 4-3/4" Long |
| 342-004 | Style 2A-SA Tweezers with Flat Round Tips, 4-3/4" Long |
| 342-002 | Style 3-SA Tweezers with Fine Tapered Tips, 4-3/4" Long |
| 342-007 | Style 3C-SA Tweezers with Fine Tapered Tips, 4-1/4" Long |
| 342-009 | Style 4-SA Tweezers with Very Fine Tips, 4-1/4" Long |
| 342-006 | Style 5-SA Tweezers with Ultra Fine Tips, 4-1/4" Long |
| 342-003 | Style 7-SA Tweezers with Curved Tips, 4-3/4" Long |

Italian High Quality Tweezers

| Part No. | Description |
|-------------------------|--|
| 342-054 | Style 00-SA Tweezers with Strong Flat Edge Tips, 4-3/4" Long |
| 342-053 | Style 2A-SA Tweezers with Flat Round Tips, 4-3/4" Long |
| 342-051 | Style 3-SA Tweezers with Fine Tapered Tips, 4-3/4" Long |
| 342-056 | Style 3C-SA Tweezers with Fine Tapered Tips, 4-1/4" Long |
| 342-055 | Style 5-SA Tweezers with Ultra Fine Tips, 4-1/4" Long |
| 342-052 | Style 7-SA Tweezers with Curved Tips, 4-1/2" Long |
| 342-050 | Style AA-SA Tweezers with Straight Fine Tips, 5" Long |

The values shown above were taken from random samples from material we believe to be typical for the product; however, actual values may vary somewhat from those listed above. All-Spec Industries makes no warranty, expressed or implied, as to the suitability of these materials for any specific use. Customers should determine product suitability based upon their own initial criteria and testing.