

# Royal 1000

Bare Alloy for Soldering (S)

Tin-Copper-Silver Alloy



"The Royal Line"

**CROWN** ALLOYS COMPANY

30105 Stephenson Hwy, Madison Heights, MI 48071  
(248) 588-3790 (800) 521-7878 [www.crownalloys.com](http://www.crownalloys.com)

## Non-Toxic General Purpose Solder

### Typical Applications

**Royal 1000** is a lead free, cadmium free, antimony free and zinc free low temperature all-purpose non-toxic solder. It has been designed specifically to replace lead solders in copper and stainless steel plumbing and in electrical applications. It is safe to use in all water systems since it meets the ASTM and NSF Food Grade and Potable Water Standards. It is used to join copper, brass, bronze, steel, stainless steel, and nickel alloys to themselves or each other and it provides superior strength and corrosion resistance to traditional tin-lead solders. **Royal 1000** does not adhere to the white metals.

### Specifications

- Tin 95.5%
- Copper 4.00%
- Silver 0.50%
  
- Melting Range 440°F - 500°F
- Elongation 3% in 2 inches
- Electrical Conductivity (%IACS) 24.9%
- Tensile Strength up to 10,000 psi\*
- Shear Strength up to 5,000 psi\*

\*Strength values are for an average joint on copper to copper. Joint strength is a function of the base metals being joined, type of joint, design of joint, temperature and soldering procedures and can therefore vary greatly.

### Procedure

Clean joint area. It is helpful to mechanically remove oxides with emery cloth, wire brush, sandblasting, etc. Apply **Crown 95 Flux** to remove more oxides and to facilitate flow of the solder into the joint area (capillary action). Use any heat source that will produce 440°F - 500°F in the base metal. If a torch is used, heat the base metal indirectly (4 to 6 inches away) to avoid burning the flux. When the flux begins to bubble, drag the **Royal 1000** over the area to be soldered until it begins to flow. If the flux turns black and has been burned, let the area cool, clean it (be sure to use emery cloth) and start over. Allow to cool slowly. Remove flux residue with hot water and a wire brush.

### Sizes and Part Numbers

Diameter	Part Numbers	
	1 lb spool	5 lb spool
1/8	RT1000/1O	RT1000/2O



**!!!! WARNING !!!!**



**WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.**

**BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).**

**THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.**

**DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.**

**BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.**

**SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.**

