Flux Coated and Bare Rod for Gas Brazing (B)



# High Strength "Nickel-Silver" Brazing Alloy

### **Typical Applications**

**Royal 120FC (flux coated) and Crown 120 (bare)** are excellent alloys for building-up and joining carbon steels, alloy steels, cast iron and non-ferrous metals (except white metals). Because of their thin flowing characteristics, they may be used to replace more expensive silver alloys (hence the name "Nickel-Silver"), when higher temperatures are acceptable.

At low temperatures (1400°F-1600°F) the deposit has controlled fluidity which makes it ideal for surfacing and build-up of parts subjected to frictional wear. The **Royal 120FC and Crown 120** are excellent build-up alloys as they work-harden with use. These alloys can be used to overlay and build-up bearings, shafts, valve seats, wedge bars and steering knuckles. The **Royal 120FC and Crown 120** will outwear the original steel when used to build-up worn or broken gear teeth!

At high temperatures (1650°F-1750°F) the **Royal 120FC and Crown 120** becomes very thin flowing and will produce high strength joints with only .001" to .003" clearance. They can be used for close fitting joints on broken drills, mill cutters, furniture, bicycle assemblies, attaching carbide cutting tips and many other applications requiring high strength.

#### **Specifications**

AWS A5.8 RB CuZn-D

	Tensile Strength Hardness	70,000 psi (average) 90-110 Brinell (as welded)
		(work hardens up to 220 Brinell)
>	Working Temperature	1400°F to 1750°F (760°C-955°C)
$\succ$	Remelt Temperature	approx. 1800°F (980°C)

#### Procedure

Clean joint area. For high strength joining, make sure a close fit is maintained (.001" to .003"). A neutral flame (for most metals) or slightly oxidizing flame (for cast irons) is recommended. Heat joint area to dull-red. When using the **Royal 120 FC**, melt off small amount of flux and alloy, then continue to heat until alloy flows. If the bare **Crown 120** rod is used, it should be heated and dipped in **Royal Tiger Flux #3**. Keep torch in constant motion to prevent overheating of local areas. Additional passes can be applied without removing flux residue from previous passes. Cool slowly.

## **Sizes and Part Numbers**

Dreduct	Size	Part Numbers		
Product		1# Package	5# Package	10# Package
	3/32 x 18"	RT120F/TN-BP	RT120F/TN	Same as <u>5#</u> Package
Royal 120 FC	1/8 x 18"	RT120F/TO-BP	RT120F/TO	
	3/16 x 18"	RT120F/TQ-BP	RT120F/TQ	
	1/16 x 36"	CT120/TL-BP	Same as <u>1#</u> Package	CT120/TL-10
	3/32 x 36"	CT120/TN-BP		CT120/TN-10
Crown 120	1/8 x 36"	CT120/TO-BP		CT120/TO-10
	3/16 x 36"	CT120/TQ-BP		CT120/TQ-10
	1/4 x 36"	CT120/TR-BP		CT120/TR-10



# **!!!! 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.



