

21

FINE FLOW PHOSPHOR COPPER ALLOY FOR HIGH RESISTANCE JOINTS IN COPPER, BRASS AND BRONZE.

CLASSIFICATION A.W.S: BCuP-2

APPLICATIONS: To weld copper without using flux or to weld copper with copper alloys (brass and bronze). To weld brass and copper, you should use S-200 flux. This alloy is widely used in the refrigeration industry, in the electrical industry and in the sanitary industry to weld copper pipes, electric cables and flexible pipes. Vilchis-21 can be used to weld nickel copper alloys with a nickel content under 30%. It is not recommended for ferrous metals.

CHARACTERISTICS: 21 is a strong weld type alloy containing phosphor. Phosphor has very good flux properties for all welds with copper. As a result -- 1. You get a fast capillary action and leakproof joints, 2. Great electric and heat conductivity and 3. Excellent resistance to fatigue and traction.

PROCEDURE: Clean the surfaces to be joined. When welding thin brass or copper sections, use VILCHIS S-200 flux. When welding copper parts, there is no need for flux. All joints have to be fit tightly. Gaps should not exceed 0.0762 mm (0.003"). If you use a large nozzle, you will be able to heat more in less time and so reduce the time for application. Once the flux turns a light colour, let a small portion of VILCHIS-21 melt down. Keep on heating until you finish the joint. This welding operation should be done fast to avert overheating or melting the filler metal again. To remove the flux, dip the part in hot water and brush it away. To restore the copper colour in the welded area, dip the part in a solution of 10% sulphuric acid and rinse with hot water.

TENSILE RESISTANCE:	2,500 KG./CM2 (36,000 PSI)
WORKING TEMPERATURE:	750°C
BRINELL HARDNESS:	130 BHN

FILLER METAL CHEMICAL ANALYSIS %		AVAILABLE SIZES
Cu	P	1.5 mm (1/16")
Resto	7.0 - 7.5	2.4 mm (3/32")
		3.2 mm (1/8")
		4.0 mm (5/32")
		4.8 mm (3/16")
		6.4 mm (1/4")