

FONTARGEN A3015 V COPPER PHOSPHORUS ALLOY

Copper-phosphorus-silver brazing alloy

Fontargen A3015 V is a high silver containing alloy with good flow characteristics and very ductile. It is suitable for gap brazing of copper and copper alloys. The homogeneous dispersion of the phosphorus increases the ductility of the wire that aims to avoid breakdowns during feeding, bending and forming process. Fontargen A3015 V suits to brazing joints operated at temperatures between -70°C and +150 °C. Fontargen A3015 V offers a good corrosion resistance except when in contact with sulfurous environment, especially under high temperatures. Due to the formation of brittle intermetallic compounds which can cause failures of the joint, phosphorus containing filler metals should not be used on Fe- and Ni- containing base alloys.

Product features	Product benefits	User benefits
» Very low phosphorus content	<ul style="list-style-type: none"> » Very good ductility » Good flow properties even at lower temperature » Low filler metal working temperature 	<ul style="list-style-type: none"> » Suitable for gap bridging and modelling works » Low brazing temperature process
» Silver content	<ul style="list-style-type: none"> » Lowers down working temperature of the filler metal » Allows dropping down phosphorus content 	<ul style="list-style-type: none"> » Good mechanical characteristics of the joint
» Homogeneous dispersion of the phosphorus	<ul style="list-style-type: none"> » Reproductive flow characteristics » No phosphorus nest » Preforms manufacturing for half and/or full automated processes possible 	<ul style="list-style-type: none"> » Good control of the wetting process » Easy bending of wires and rods if necessary
» Auto fluxing on Cu/ Cu applications	<ul style="list-style-type: none"> » Due to the presence of phosphorus in the alloy, there is no need of flux when brazing copper to copper. However, when joining other base materials (e.g. bronzes / brasses), using an appropriated flux is necessary 	<ul style="list-style-type: none"> » No post braze cleaning needed when brazing copper to copper
» Operation temperatures	<ul style="list-style-type: none"> » Determined by notched flexural impact test acc. to DIN EN 10045 	<ul style="list-style-type: none"> » Can be used for joints/parts operated at temperatures between -70°C and +150°C
» Electrical conductivity	<ul style="list-style-type: none"> » Good electrical conductivity 	<ul style="list-style-type: none"> » Can be used for joints where electrical conductivity is required



Typical applications

- » Heat exchangers / Evaporators
- » Refrigerators
- » Air Conditioners
- » Plumbing industry
- » Electrical applications

Mainly used for

- » Electrical motors
- » Water heaters

FONTARGEN A3015 V

Classification			
AWS A5.8	EN ISO 17672	EN 1044	DIN 8513
BCuP-5	CuP284	CP102	L-Ag15P

Typical chemical composition, wt. %			
Cu	Ag	P	Others
Bal.	15.0	5.0	0.15

Mechanical properties							
Working Temperature	Melting Range	Specific weight	Elongation	Operating service temperatures of the joint	Max. service temperatures of the joint	Electrical conductivity	Recommended joint gap
700°C	645°C/800°C	8.4g/cm ³	10%	-70°C/+150°C	200°C	7 Sm/mm ²	0.05mm/ 0.2mm

Base materials
Brass, Gunmetal, Bronze, Copper

Heat sources
Open flame, Induction, Resistance, Furnace

Flux
FH 10 acc. to EN 1045 => F300 Series of Fontargen

Art. Nr.	Form	Dimensions (mm)	Packaging
10495	Rods	2.0 x 500	5 kg Box
42411	Rods	2.0 x 500	0.5 kg Plastic Tube

