

## In-Depth Know-How

## FONTARGEN AF 340 XS BF silver brazing alloy with significantly reduced flux coating



Fontargen AF 340 XS BF is a high silver containing alloy with good flow characteristics and high ductility. It is suitable for brazing of stainless steel and copper alloys. With the extra thin flux coating especially suitable for soldering connections with low flux requirements. Fontargen AF 340 XS BF suits to brazing joints operated at temperatures between -200°C and +200°C. Fontargen AF 340 XS BF offers a good corrosion resistance especially under high temperatures. The absence of cadmium makes it especially suitable for joints in the food industry. The boric acid free flux coating is the alternative to the existing products but without SVHC-Substance Of Very High Concern.

Depending on requirements, 4 additional flux coatings are available (see page 2)

| Product features   | Product benefits   | User benefits  |
|--|--|--|
| <ul> <li>Extra thin flux coating<br/>(XS variant)</li> </ul> | » Low flux content   | <ul> <li>» Less work for remove flux residues</li> <li>» Reduction of corrosion risks</li> </ul>   |
| » Boric acid and Borax<br>free flux coating                  | <ul> <li>» Partly flexible</li> <li>» Excellent flowing characteristic</li> <li>» Easy removal of flux residues</li> </ul> | <ul> <li>» Bending of the rod possible</li> <li>» No loss of flux coating during transport or in case of impact</li> <li>» Healthy and environment friendly</li> <li>» Less work for remove flux residues</li> </ul> |
| » Low working<br>temperature                                 | » Low warpage on thin parts  | <ul> <li>» Time saving process</li> <li>» Interesting temperature window process</li> <li>» No annealing coloring on stainless steel</li> </ul>  |
| » High silver content  | <ul> <li>Lowers down working temperature of the filler<br/>metal</li> </ul>  | » High ductility and tensile strength  |
| » High service<br>temperature                                | » No loss of strength at high temperatures (until 200°C)   | <ul> <li>Possible usage on parts serviced at higher<br/>temperature</li> </ul>   |
| » Small melting range  | » Good flow properties   | <ul> <li>Good capillarity effect, high quality of the joining</li> <li>Fast brazing process</li> </ul>   |



## Typical applications

- » Heat elements
- » Plate heat exchangers
- » Measuring equipment / devices
- » Food industry
- » Electrical contacts

## Mainly used for

- » Parts subject to diverse dynamics forces: (vibrations, dilatation, etc...)
- » Parts where no annealing coloring of stainless steel is important
- » Parts with high corrosion resistance requirements



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# FONTARGEN AF 340 XS BF

| Classification |              |         |          |
|----------------|--------------|---------|----------|
| AWS A5.8       | EN ISO 17672 | EN 1044 | DIN 8513 |
| B-Ag28         | Ag140Si      | AG105   | L-Ag40Sn |

| Typical chemical composition, wt. % |    |    |    |
|-------------------------------------|----|----|----|
| Cu                                  | Ag | Zn | Sn |
| Bal.                                | 40 | 28 | 2  |

| Mechanical properties  |               |                       |            |   |  |
|------------------------|---------------|-----------------------|------------|---|--|
| Working<br>Temperature | Melting Range | Specific weight       | Elongation | Operating service<br>temperatures of<br>the joint | Max. service<br>temperatures of<br>the joint |
| 690°C                  | 650°C/710°C   | 9.1 g/cm <sup>3</sup> | 20%        | -200°C/+200°C                                     | 200°C  |

#### **Base materials**

Unalloyed and alloyed steel, Cast iron, nickel, copper, copper alloys, nickel, nickel alloys

### Heat sources

Open flame, Induction, Resistance

### Flux

FH 10 acc. to EN 1045

| Product / BF=Boric acid free | Form / Dimensions (mm)*    | Colour | Flux coating     |
|------------------------------|----------------------------|--------|------------------|
| AF 340 XS BF                 | Rods 2.0 × 500             | White  | XS = Extra Thin  |
| AF 340 XD BF                 | Rods 1.5 / 2.0 / 3.0 x 500 | Yellow | XD = Very Thin   |
| AF 340 D BF                  | Rods 1.5 / 2.0 / 3.0 x 500 | Yellow | D = Thin         |
| AF 340 BF                    | Rods 1.5 / 2.0 / 3.0 x 500 | Yellow | Standard         |
| AF 340 XL BF                 | Rods 1.5 / 2.0 / 3.0 x 500 | Yellow | XL = Extra Large |

\* Other dimensions on request



