# FONTARGEN HTL 1A Nickel-based high-temperature brazing paste

| DIN EN ISO 17672: | Ni 610                 |
|-------------------|------------------------|
| DIN EN 1044:      | NI 1A1                 |
| DIN 8513:         | L-Ni1a                 |
| EN ISO 3677:      | B-Ni74CrFeSiB-980/1070 |
| AWS:              | BNi-1A                 |
| AMS:              | 4776 F                 |
| Boing:            | BTS 1025-5             |

## Composition, typical analysis (% w/w):

| Cr | S  | i | В   | Fe  | С      | Р      | Ni        |
|----|----|---|-----|-----|--------|--------|-----------|
| 14 | 4. | 5 | 3.2 | 4.5 | < 0.06 | < 0.02 | Remainder |

fontargen brazing

#### Mechanical and physical properties:

| Working temperature:                 | 1077 - 1204 °C       |
|--------------------------------------|----------------------|
| Melting range:                       | 980 - 1070 °C        |
| Gap width:                           | 0.05 - 0.1 mm        |
| Viscosity range:                     | 55.000 - 65.000 mPas |
| Metal content:                       | ≈ 90 % w/w           |
| Oxidationresistant up to:            | 1200 °C              |
| Shear strength [N/mm <sup>2</sup> ]: | 383 (1.4006)         |
| (at room temperature)                | 334 (1.4301)         |
|                                      |                      |

# Characteristics / Applications:

HTL1A is an alloy whose composition is identical to HTL 1, however, with a max. C-content of 0.06 %. This brazing alloy is utilised for parts which are used in the high-temperature range as well as in the cooling technology. This brazing alloy shows good gap bridging properties. Suitable for slowly heated assemblies made of steel, nickel, cobalt and special metals. This brazing alloy achieves good stability, is heat- and oxidationresistant and offers good diffusibility. Better flowing properties compared to HTL 1.

# Application:

Manually or automatically with pneumatical or mechanical dispensing units.

#### Heat sources:

| Inert-gas continuous furnace<br>Argon | Inert-gas continuous furnace<br>Hydrogen | Vacuum furnace |
|---------------------------------------|--|----------------|
| $\square$                             | $\boxtimes$                              | $\boxtimes$    |

### Availability:

| Paste HTL 1A AP | Powder HTL 1A |
|-----------------|---------------|
|                 | $\boxtimes$   |

13/10/JL/1