



## Technical Data Sheet BrazeTec P20/45



TD BT 1110 E.06

### Inhalt

#### Standard

DIN EN 1044

AL 104 (Brazing alloy)

FL 20 (Flux)

#### Nominal composition [wt.-%]

Additional elements max. [wt.-%]

Permitted impurities max. [wt.-%]

Max. impurities [wt.-%]

Al Rem.; Si 12,0

Fe 0,6; Cu 0,30; Mn 0,15; Mg 0,10; Zn 0,20; Ti 0,15

each 0,05

0,15

#### Technical data

Melting range of brazing alloy

approx. 575 - 585 °C

Working temperature

approx. 590 °C

Density of brazing alloy

approx. 2,65 g/cm<sup>3</sup>

Metal content

approx. 46 wt.-%

Grain size of brazing alloy powder

< 100 µm

Viscosity

210 - 250 dPa s (Haake Viscotester 02, Sp.2, 20 ±2 °C)

Residues

not corrosive; not water-soluble

Cleaning agent

Water

Shelf life

min. 6 months, but only in the original sealed container  
at storage temperatures between +5 to +30°C  
stir well before use

#### Packaging

Standard

1; 10; 25 kg

#### Applications

BrazeTec P20/45 is a paste for brazing of aluminium and low alloyed aluminium alloys. Suitable for brazing are all aluminium alloys with solidus temperatures of 630°C or higher. Excepting: magnesium containing alloys, with these the solderability has a limit at 0,6 to 0,9% Mg. It is also possible to braze aluminium to stainless steel.

The normal use of the paste is brazing in a furnace under protective atmosphere.

Suitable atmospheres are: Nitrogen, hydrogen respectively mixtures of these gases.

For a good brazing result the oxygen content of the gas should be very low. Amounts of <100ppm of O<sub>2</sub> are recommended if it is brazed with pure nitrogen. With hydrogen or nitrogen/hydrogen (min. 50% of hydrogen) as protective atmosphere it is possible to join aluminium to stainless steel.

Examples of application: continuous flow water heaters for dish washers and heating (cattle) elements for coffee machines.

#### Further comments:

After applying to the part a drying process (130 - 150°C) is recommended.

The residues of the paste are not corrosive, hence a cleaning step is not necessary.

Our information about our products and equipment as well as our systems and procedures are based on comprehensive research and application technological experience. We communicate these results, but take no liability for respective single contracts that are exceeding thereof. We reserve the right to make technical changes in the process of product development in spoken and written terms to the best of our knowledge. Only as an exception do we give guarantees for appearance and workmanship or durability that has been specifically documented in an individual contract. Furthermore, our application technology services are available at your convenience for more detailed consultation such as the involvement in solving manufacturing and application technology problems.

This does not however, release the user from their own responsibility for checking the input and recommendations we give for

their own use prior to using that input or recommendation. This is especially applicable for foreign deliveries. This also applies to the trade mark rights of third parties, for applications and procedures that are not specifically given by us. In the event of damage or loss our liability is limited to indemnification of the same admeasurements as is foreseen in our general terms of sales and delivery in reference to deficiencies in quality.