The nickel (Ni) based brazing alloy **BrazeLet Ni2** is suitable for brazing stainless steel or super alloy materials in vacuum or nitrogen-free protective atmosphere. **BrazeLet Ni2** contains boron as a melting point depressant and can therefore be brazed at relatively low temperatures. It provides excellent high temperature strength and oxidation resistance. It is a versatile brazing filler metal used in aerospace, automotive and industrial applications such as heat exchangers and turbines.

As **BrazeLet Ni2** is sensitive to gap thickness, it is recommended that gaps do not exceed 50 μm. Wider gaps risk the formation of a crack-sensitive brittle centre line.

The brazing paste **BrazeLet Ni2P-9012** is typically used for printing thick paste layers of about 0.2 to 0.6 mm on flat parts or on top of structured parts by use of screens or stencils. A typical application is printing of paste on hole plates of tube bundled heat exchangers. The use of rubber squeegees is recommended. Reliable printing requires precise positioning fixture tool by use of vacuum table or clamping device. Typical printing speed is 100 mm/s. Thin printing lines should at least have a width twice the printing thickness and the small dots diameter should be three times the printing thickness or greater. Printing accuracy is very precise as the paste maintains its shape during drying.

The solvent based **BrazeLet Ni2P-9012** increases productivity wherever drying of the paste is an issue. It has no settlement and no stirring is needed in the equipment. However, when opening a can from stock it is always recommended to stir the paste. The printed parts can be dried with standard drying process (hot air) at 120-170°C. Here, the drying time needs to be established as it varies depending on thermal mass, parts design and the used furnace. After drying, the paste has excellent adhesion to the metal sheet.

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**Alloy Application BrazeLet Ni2**

- **Naming**: Ni2B0 according to ISO 17672/BNi-2 according to ANSI/AWS A5.8
- **Standard composition**: B-Ni82CrSiBFe according to ISO 17672 and ANSI/AWS A5.8
- **Melting range**: 970-1000°C (1778 - 1832°F)
- **Min. brazing temperature**: 1050 °C (1922°F)
- **Impurities**: According to ISO 17682 and ANSI/AWS A5.8

**Paste Application Screen Printing**

- **Metal content**: 90%
- **Powder size**: <106 μm
- **Typical density**: 4 g/cm³
- **Flash point of solvent**: >100°C (212°F)
- **Recommended drying**: 120-170°C (248-338°F)
- **Evaporation temperature of binder**: approx. 350-450°C (662-842°F)
- **Cleaning**: Aliphatic solvents
- **Shelf life**: 8 months in cans, 6 months in cartridge
- **Storage**: Origin closed at 4 to 30°C (39-86°F)
- **Typical Viscosity, Brookfield T-spindle D with Helipath, Speed 2.5 rpm, 20°C (70°F)**: 300 Pas

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Customer support is provided every step of the way. We are deeply involved with you prior to delivery, offering expert advice to ensure an optimum solution. The Höganäs tech centres are well equipped to support all kinds of trials for roller coating applications and the parameters can be targeted at customers’ process. We can provide test series of components with paste applied the same way as in final production in order to make sure the customers’ productivity and quality requirements are fulfilled.

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