



Dispensing BrazeLet® Ni613D-9004

Alloy Application BrazeLet Ni613

Naming	BrazeLet Ni613
Composition	B-Ni60CrPSi
Melting temperature	970-1,030 °C (1,778-1,886 °F)
Min. brazing temperature	1,090 °C (1,994 °F)
Impurities	According to ISO 17672 and ANSI/AWS A5.8

Paste Application Dispensing

Metal content	90%
Powder size	<106 µm
Typical density	4 g/cm ³
Flash point of solvent	>100 °C (212 °F)
Recommended drying	120-170 °C (250-340 °F)
Evaporation temperature of binder	Approx. 300-400 °C (570-750 °F)
Cleaning	Aliphatic solvents
Shelf life	18 months / 6 months in cartridges
Storage	Origin closed at 4-30 °C (39-86 °F)
Typical Viscosity, Brookfield T-spindle D with Hellpath, Speed 2.5 rpm, 20 °C (70 °F)	250 Pas

BrazeLet Ni613, a nickel (Ni) based brazing alloy, features a best in class wetting behaviour on stainless steel material in vacuum or protective atmosphere. Its high level of alloyed chromium (Cr) results in a superior hot gas and acid corrosion resistance. The brazing alloy is best suited for brazing heat exchangers such as exhaust gas recirculation (EGR) cooler in automotive or tap water applications in home or industry.

Unlike the standardised Ni-based alloys, **BrazeLet Ni613** is able to fill gap sizes of <0.05 mm to 0.2 mm without brittle phase lines or cracks. The resulting micro hardness of the brazing area is less than half of a Ni650 brazing gap. This results in more reliable and safe brazing.

The brazing paste **BrazeLet Ni613D-9004** can be used for dispensing applications, typically found on heat exchanger inlet and outlet tubes, housing to core joints and hole plate to tube joints. It can be dispensed by using standard air pressure dispensing units. For better precision, screw dispense units are recommended. The paste sticks on all bevel and vertical positions without the need of pre-drying but is easily removed using aliphatic solvents. **BrazeLet Ni613D-9004** properties allow reliable application in a wide speed range as a result of the dispensing equipment / automation as well as the needle diameter. The paste can be delivered in 4 kg cartridges for use in automated applications or different sized cans for refilling of smaller cartridges for manual applications. It has no settlements. However, when opening a can from stock it is always recommended to stir the paste.