



Roller coating **BrazeLet® Ni2R-8501**

Alloy Application BrazeLet BNi2

Naming	Ni 620 according to ISO 17672 BNi-2 according to ANSI/AWS A5.8
Composition	B-Ni82CrSiBFe according to ISO 17672 and ANSI/AWS A5.8
Melting temperature	970-1,000 °C (1,778-1,832 °F)
Min. brazing temperature	1,050 °C (1,922 °F)
Impurities	According to ISO 17682 and ANSI/AWS A5.8

Paste Application Roller Coating

Metal content	85%
Powder size	<63 µm
Typical density	3.3 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	18 months in cans / 6 months in cartridges
Storage	Origin closed at 4-30 °C (39-86 °F)
Typical Viscosity, Brookfield T-spindle C with Hellpath, Speed 2.5 rpm, 20 °C (70 °F)	90 Pas

The nickel (Ni) based brazing alloy **BrazeLet BNi2** is suitable for brazing stainless steel or super alloy materials in vacuum or nitrogen-free protective atmosphere. **BrazeLet BNi2** 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 BNi2** 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 Ni2R-8501** can be used for roller coating fins or structured plates, typically found in flat heat exchanger designs. Depending on type of roller used the paste can be applied with thin layers either on top or on the side of the fin tips. Gap size between paste roll and scraper of 0.08 to 0.12 mm is recommended. The amount of paste is controlled by weight and is a function of the fins or structured plate design. **BrazeLet Ni2R-8501** properties allow reliable application in a wide range of coating speeds, tested up to 20m/min. The solvent based paste ensures reliable coating over time without drying on the roll. 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 coated fins can be dried with standard drying process (hot air) at 120-170 °C. Here, the drying time depends on thermal mass, parts design and the used furnace and thus needs to be established. When dried, **BrazeLet Ni2R-8501** has excellent adhesion to the metal sheet.