



Dispensing **BrazeLet® Ni613DW-9007**

Alloy Application BrazeLet Ni613

Naming	BrazeLet Ni613
Composition	B-Ni60CrPSi
Melting temperature	970-1030°C (1778-1886°F)
Min. brazing temperature	1090°C (1994°F)
Impurities	According to ISO 17672 and ANSI/AWS A5.8

BrazeLet Ni613, a nickel (Ni) based brazing alloy, features a best in class wetting behavior on stainless steel material in vacuum or protective atmosphere. Its high level of alloyed chromium (Cr) results in 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 standardized 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 leads to a more reliable and safe brazing.

Paste Application Dispensing

Metal content	90%
Powder size	<106 µm
Typical density	4.5 g/cm³
Flash point of solvent	not applicable, water based
Recommended drying	RT-150°C (RT-302°F)
Evaporation temperature of binder	Approx. 250-300°C (482-572°F)
Cleaning	Water
Shelf life	12 months
Storage	Origin closed at -20 to 35°C (-4 to 95°F), 4 to 35°C (39-95°F) in cartridges
Typical Viscosity, Brookfield T-spindle E with Hellpath, Speed 2.5 rpm, 20°C (70°F)	1200 Pas

The water-based brazing paste **BrazeLet Ni613DW-9007** can be used for dispensing applications, typically found on heat exchanger inlet and outlet tubes, housing to core joints and hole plates to tube joints. It dries quickly and sticks to all bevel and vertical positions without the need of pre-drying. It can be easily removed with water. The paste has a very low polymer content and the flux-free binder is specially designed to decompose cleanly at low temperatures, as to minimize need for furnace maintenance, while preventing pre-oxidation of Ni613-powder in trivial furnace atmospheres. It shows extremely good residue-free brazing results in both vacuum and continuous belt furnace brazing. **BrazeLet Ni613DW-9007** properties allow reliable application in a wide speed range as a result of the dispensing equipment / automatization as well as the needle diameter. The paste can be delivered in cartridges for use in automated applications or different sized cans. It can be frozen and brought back to room temperature for use without any damage to its properties.