



Pallabraz 1090 - Palladium Based Brazing Alloy

Joints brazed Johnson Matthey's Pallabraz alloys have good oxidation resistance and improved mechanical strength at elevated temperatures over standard silver brazing alloys. Pallabraz alloys offer good corrosion resistance in many environments. They show resistance to interfacial corrosion when brazing ferritic and austenitic stainless steels. Palladium-bearing alloys do not cause 'stress cracking' and are recommended on iron-nickel-cobalt alloys. Pallabrazes have excellent flow and penetration qualities but are also capable of filling joint gaps up to 0.5mm.

- Composition:** 18% Palladium, 82% Copper
Conforms to: EN 1044:1999 PD203 / EN 1044:1999 PD203V1 / EN 1044:1999 PD203V 2
(Former Specification: BS 1845:1984 PD8V), ISO 17672:2010 Pd 483 V1
Melting range: 1080-1090°C

JM supply this alloy to either the standard non-vacuum grade EN 1044:1999 PD203 or to the lower impurity limits of EN 1044:1999 PD203 V1 or EN 1044:1999 PD203 V2.

What Materials can be joined with Pallabraz 1090?

Typical applications are for brazing thermionic valve devices and aerospace components. Pallabraz alloys have been used in the glass and chemical industries where increased resistance to corrosion and chemical attack makes them a good choice. It can be used to join copper, stainless steel, super alloys, nickel, iron, cobalt, molybdenum, niobium, tungsten and their alloys. Grade V1 is normally used for components that see service in vacuum.

Is a flux required?

Pallabraz 1090 is most often used when, brazing in hydrogen based reducing atmospheres, vacuum brazing, or in a protective atmosphere - under these conditions no flux is used.

Product Availability – all forms are manufactured to order

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| Wire / rods | 0.25mm to 3mm |
| Foil | Widths from 2mm to 100mm, 0.08mm to 0.5mm thick |
| Braze-pastes | On request |
| Powder | Various particle sizes |
| Other | Rings. Discs and preformed shapes made from foil |

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