

High Performance Brazing Filler Metal

www.metglas.com MBF1000 Series

As the world's leading producer of Amorphous Brazing Filler Metals, Metglas, Inc. continues to expand brazing alloy compositions suitable for the most demanding applications. Our new amorphous MBF-1000 series brazing foil is specifically designed for application in aerospace turbine blade repair and polycrystalline diamond tip brazing.

MBF 1000 Series Alloy Composition

Amorphous Metals	Nominal Composition, wt %							Temperature °C (°F)		Mass Density
Designation	Ni	Cr	Pd	Si	В	Со	Mo	Solidus	Liquidus	g/cm
MBF 1005	Bal	ı	46.7	6.1	-	ı	-	810 (1490)	851 (1564)	9.93
MBF 1011	Bal	ı	45.5	5.0	-	5.0	4.5	847 (1557)	895 (1643)	9.11
MBF 1012	Bal	10.5	36.0	0.5	3.0	ı	ı	820 (1508)	960 (1760)	8.80

MBF 1005 and 1011 were specifically designed to have a brazing temperature below 900°C to reduce thermal stresses from the brazing process and prevent polycrystalline diamond from graphitization. The low silicon content and lack of boron help reduce intermetallic particles in the braze joint and increase joint strength.

All MBF 1000 series alloys can be used to join 300 series stainless steel and nickel based super-alloys. Braze joints with these materials exhibit very high corrosion resistance and low erosion of base metal.

Available as flexible 100% metallic foil having 18-50 µm (0.7-2.0 mil) thickness and 50 mm (2") width. Foil with wider width may be supplied on a special request.

RECOMMENDED APPLICATIONS:

AIRCRAFT AND POWER TURBINES, DIAMOND TIPPED TOOLS AND DRILL BITS.

Contact Information

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Ref: MBFPL10 15 2015