

Metglas® Braze Foils (MBFs) are produced by rapidly quenching molten metal at rates of over 1,000,000°C per second. This process creates very uniform, ductile and homogeneous braze foils that can be used to create consistent, void-free and optimum strength joints. Environmentally-friendly MBFs also allow you to reduce your operating costs by reducing wastage, improving yield, improving furnace performance and by lending to automation.

Nickel-Based Braze Foils

MBF Alloy	AWS & ASM Classifications	Nominal Composition, wt %								Melting Temp. C° (F°)		Braze Temp. (Approx.)	Density g/cm ³ (lbm/in ³)
		Cr	Fe	Si	C*	B	P	Mo	Ni	Solidus	Liquidus	C° (F°)	
15		13.0	4.2	4.5	0.03	2.8	-	-	Bal	965 (1769)	1103 (2017)	1135 (2075)	7.82 (0.283)
20	AWS BNi2 / AMS 4777	7.0	3.0	4.5	0.06	3.2	-	-	Bal	969 (1776)	1024 (1875)	1055 (1931)	7.88 (0.285)
30	AWS BNi3 / AMS 4778	-	-	4.5	0.06	3.2	-	-	Bal	984 (1803)	1054 (1929)	1085 (1985)	8.07 (0.291)
50	AWS BNi5a	19.0	-	7.3	0.08	1.5	-	-	Bal	1052 (1924)	1144 (2091)	1170 (2138)	7.70 (0.278)
51	AWS BNi5b	15.0	-	7.25	0.06	1.4	-	-	Bal	1030 (1886)	1126 (2058)	1195 (2183)	7.73 (0.278)
53		15.0	-	7.25	0.06	1.4	-	5.0	Bal	1045 (1900)	1127 (2060)	1195 (2183)	7.75 (0.280)
60	AWS BNi6	-	-	-	0.10	-	11.0	-	Bal	883 (1621)	921 (1688)	950 (1742)	8.14 (0.294)
62		21.0	<1	0.5	-	0.5	8.0	1.0	Bal	878 (1612)	990 (1814)	1020 (1868)	7.74 (0.280)
64		17.5	4.0	6.0		0.75	5.0	1.0	Bal	913 (1675)	978 (1792)	1010 (1850)	7.68 (0.277)
80	AWS BNi9	15.2	-	-	0.06	4.0	-	-	Bal	1048 (1918)	1091 (1996)	1120 (2045)	7.94 (0.278)

* Maximum concentration

Specifications and Cross Reference

MBF ALLOY	AWS	AMS	Pratt & Whitney	General Electric	Garrett Engine Division EMS 54752	SNECMA DMR 35	Textron Lycoming
15			PWA996 / CPW494		-XIII		M3876
20	BNi2	AMS4777			-II	.302	
30	BNi3	AMS4778		B50TF205	-I	.304	
50	BNi5a			B50TF217*			
51	BNi5b						
53							
60	BNi6				-XI		
62							
64							
80	BNi9			B50TF207	-VIII	.307	

* Alternative to GEB50TF81 powder and AMS 4782

Metglas® Braze Foil Outperforms Alternative Filler Metals

Ref: MBFPL062112

www.metglas.com
metglas@metglas.com
1-800-581-7654

Copyright © 2012 Metglas®, Inc.
All Rights Reserved

Available Foil Geometry

Metglas Braze Foil can be slit to specific widths and/or stamped into precise shapes for any application.

Maximum Width by Thickness					
MBF Alloy	STANDARD FOIL THICKNESS				
	.0010" (25.4 µm)	.0015" (38.1 µm)	.0020" (50.8 µm)	.0025" (63.5 µm)	.0030" (76.2 µm)
MBF15	6.7" (215.6 mm)	8.5" (215.6 mm)	-	-	-
MBF20	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)
MBF30	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)
MBF50	6.7" (165.1 mm)	6.7" (165.1 mm)	-	-	-
MBF51	8.5" (215.6 mm)	8.5" (215.6 mm)	8.5" (215.6 mm)		
MBF53	4.0" (101.6 mm)	4.0" (101.6 mm)	-	-	-
MBF60	3.0" (76.2 mm)	2.0" (50.8 mm)	-	-	-
MBF62	6.7" (170.18 mm)	8.5" (215.6 mm)	4.0" (101.6 mm)	-	-
MBF64	6.7" (170.18 mm)	8.5" (215.9 mm)	-	-	-
MBF80	-	2.0" (50.8 mm)	-	-	-

Contact Information

Americas

Metglas®, Inc.

440 Allied Drive
Conway, SC 29526
Tel: (800) 581-7654
Tel: (843) 349-7319
Fax: (843) 349-6815
metglas@metglas.com

Asia

Hitachi Metals Hong Kong
(Taiwan Office)

4F-1, No. 3, Section 1
Tun Hwa South Road
Taipei 105, Taiwan Region
Tel: 886-2-2570-3325
Fax: 886-2-2579-5652
metglas-asia@metglas.com

Europe

Hitachi Metals Europe GmbH

Immermann Strasse 14-16
D-40210 Düsseldorf
Germany
Tel: +49 (0) 211 16009-11
Fax: +49 (0) 211 16009-30
metglas-europe@metglas.com

India

Hitachi Metals (India) Pvt. Ltd.

Plot No. 94 & 95, Sector 8, IMT
Manesar, Guragon
122050, India
Tel: 01-244-812300
Fax: 01-242-290015
metglas-india@metglas.com

