

































BRAZETEC Brazing Alloys
and Sandwich Alloys for the
Brazing of Tungsten Carbides



/ BRAZETEC Brazing Alloys for the Brazing of Tungsten Carbides

The mentioned BRAZETEC brazing alloys are suitable for the brazing of tungsten carbides and hard to wet materials such as wolfram,

molybdenum, tantalum and chrome. The strength achieved is dependent upon the base material.















Name	Composition by Weight-%						Melting Range acc. to DSC	Melting Range acc. to ISO 17672	Brazing Temp. min.	Shear Strength ¹⁾ min.	Density	ISO 17672	Notes on Application	Available Forms
	Ag	Cu	Zn	Mn	Ni	Misc.	in °C	in °C	in °C	in MPa	in g/cm ³			   
BrazeTec 6488	64	26	-	2	2	6 In	730 – 780	-	770	150	9.6	-	TiN-coatable	   
BrazeTec 5081	50	20	28	-	2	-	670 – 730	660 – 715	700	230	9.2	Ag 450	-	   
BrazeTec 4900	49	16	23	7.5	4.5	-	680 – 705	680 – 705	690	250	8.9	Ag 449	-	   
BrazeTec 4900 A	49	27.5	20.5	2.5	0.5	-	670 – 720	-	710	240	8.9	-	-	   
BrazeTec 2700	27	38	20	9.5	5.5	-	690 – 850	680 – 850	800	250	8.7	Ag 427	-	   
BrazeTec 21/80	-	86	-	12	2	-	970 – 1,005	-	990	200	8.8	-	zinc-free alloys suitable for furnace brazing	   
BrazeTec 21/68	-	87	-	10	-	3 Co	980 – 1,020	-	1,020	200	8.8	-	-	   

Measured according to BRAZETEC standard, compound 1.2210 & K10

/ BRAZETEC Sandwich Alloys for the Brazing of Tungsten Carbides

BRAZETEC has developed a sandwich alloy brazing system that can compensate for internal stresses caused by the different thermal expansion coefficients during cooling. We recommend the sandwich brazing alloy BrazeTec 49/Cu^{plus} for applications that require an especially high degree of shear strength. A Nickel intermediate

layer allows a stabilisation of the joint in combination with higher shear strength. The strength to be achieved is dependent upon the strength of the base material. Specific ratios of layer thicknesses are available on request.

Name	Composition ¹⁾ by Weight-%						Melting Range acc. to DSC	Melting Range acc. to ISO 17672	Brazing Temp. min.	Shear Strength ²⁾ min.	Density	Notes on Application	Available Forms
	Ag	Cu	Zn	Mn	Ni	In	in °C	in °C	in °C	in MPa			 
BrazeTec 49/Cu	49	27.5	20.5	2.5	0.5	-	670 – 720	-	710	150	9.0	intermediate copper layer	 
BrazeTec 49/Cu ^{plus}	49	27.5	20.5	2.5	0.5	-	670 – 720	-	710	180	9.0	modified intermediate layer	 
BrazeTec 49/NiN	49	27.5	20.5	2.5	0.5	-	670 – 720	-	710	150	9.0	nickel net sandwich brazing alloy	 
BrazeTec 49/CuNiFe	49	27.5	20.5	2.5	0.5	-	670 – 690	-	690	150	9.0	intermediate CuNiFe layer	 
BrazeTec 64/Cu	64	26	-	2	2	6	730 – 780	-	770	150	9.6	suitable for TiN coating, intermediate copper layer	 
BrazeTec Cu/NiN	-	100	-	-	-	-	1,085	1,085	1,100	200	8.9	nickel net sandwich brazing alloy	 

¹⁾ The data on the composition of sandwich brazing alloys refer only to the brazing layer. ²⁾ Measured according to BRAZETEC standard, compound 1.2210 & K10

 Wire  Rods  Strip  Preforms  Flux coated brazing rods

/ BRAZETEC BlueBraz

Less silver: up to 21 percent less in weight!

By substantially reducing the silver content in our innovative BrazeTec BlueBraz brazing alloys, you achieve permanent cost reduction up to 20%¹. You become less dependent on silver price fluctuation in the market of precious metals and thus get more planning stability when calculating the cost of your materials.

Comparable processing properties:

Construction, processes and processing remain unchanged. During the development of BrazeTec BlueBraz, apart from reducing silver content, the top priority was retaining the important properties of materials of standard brazing alloys. The functionality of BrazeTec BlueBraz has been confirmed in extensive tests and experiments. For you as customer, this means that neither constructions nor processes must be changed...

Name	Composition by Weight-%						Melting Range acc. to DSC approx.	Brazing temp. approx.	Shear strength ¹ min.	ISO 17672	AWS 5.8
	Ag	Cu	Zn	Mn	Ni	In	in °C	in °C	in MPa		
BrazeTec BlueBraz 2810	28	39	20	10	1	2	680-760	710	250	-	-
BrazeTec BlueBraz 28/Cu	28	39	20	10	1	2	680-760	710	150	-	-
BrazeTec BlueBraz 28/Cu ^{plus}	28	39	20	10	1	2	680-760	710	180	-	-

¹ depends on the product, the amount and the silver price ¹ Measured according to BrazeTec standard, compound 1.2210 & K10

BRAZETEC GmbH
Konrad-Zuse-Straße 13
63755 Alzenau
Germany

Tel. +49 6023 5071-0

info@brazetec.de
www.brazetec.de