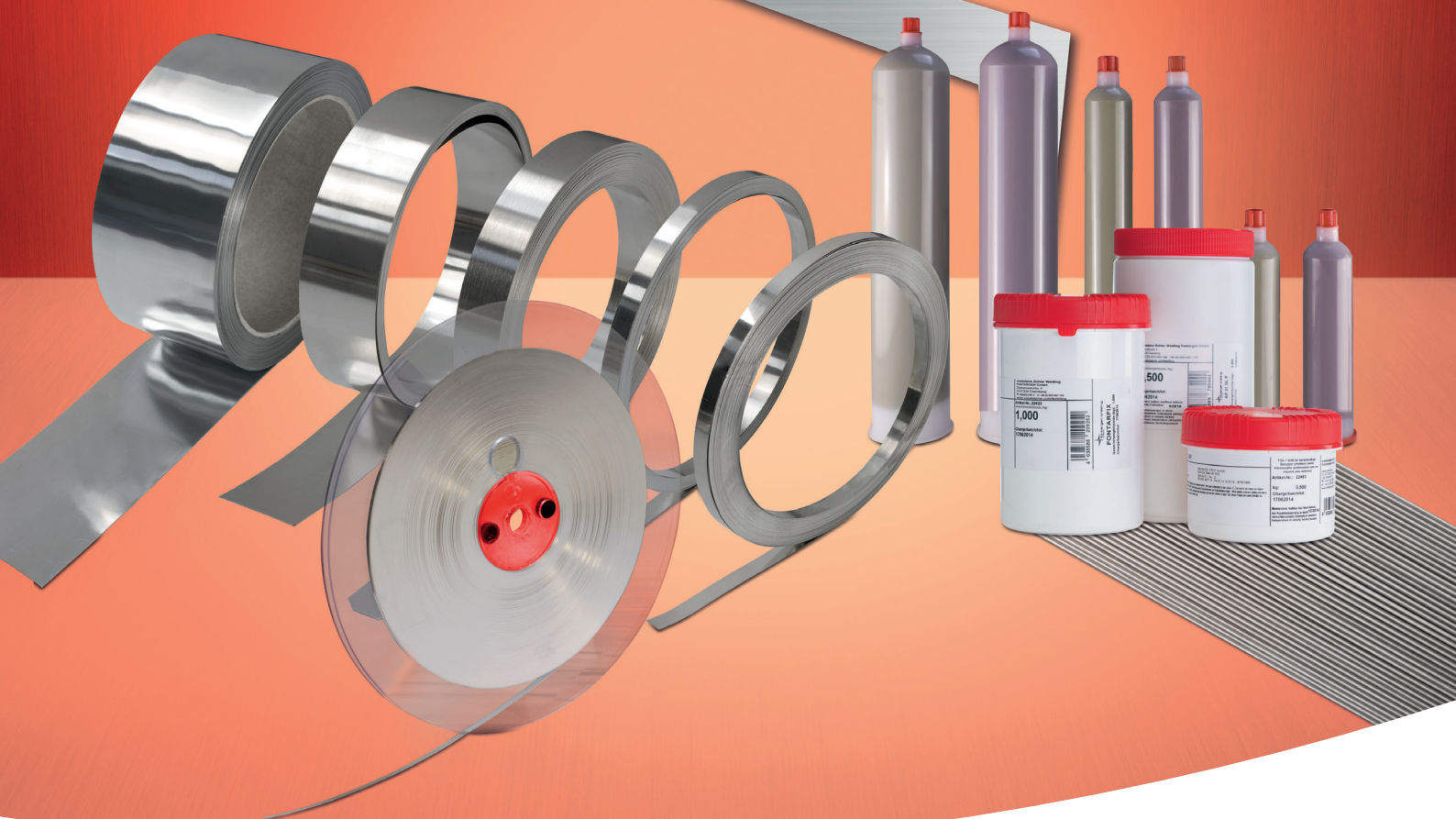


In-Depth Know-How

BRAZING FOIL WITH LOW SILVER CONTENT A 338 F/FT



In-Depth Know-How – As a leading brand of soldering and brazing consumables, Fontargen Brazing offers proven solutions based on 50 years of industrial experience, tried and tested processes and methods. This In-Depth Know-How has made Fontargen Brazing an internationally preferred partner for every soldering and brazing task.

A 338 F AND A 338 FT

Costs saving through silver content reduction

The use of silver foil to join tungsten carbides to steel is very common.

Especially manganese and nickel containing alloys are used because of their positive wetting and strength properties, e.g. the saw blade industry uses the alloy B-Ag49ZnCuMnNi-680/705 (Fontargen A 312 F).

The nickel and manganese containing Fontargen brazing alloy A 338 is a real alternative to the common 49 % silver-bearing alloy, with comparable properties in melting range, strength, wetting combined with a lower silver content (see table below). This enables the production with lower manufacturing costs.

The foil is available as solid foil A 338 F as well as tri-layer-foil (sandwich) A 338 FT.



Comparison of brazing alloy A 312 F and the alternative A 338 F/FT

	A 338 F		A 324 F		A 338 FT		A 312 F	
EN ISO 3677	B-Ag38CuZnMnNi-680-700		B-Ag49CuZnMnNi 680-705		B-Ag38CuZnMnNi 680-700 tri-layer-foil		B-Ag49CuZnMnNi 680-705 tri-layer-foil	
Composition [in weight %]	Ag = 38.0 Zn = Bal. Ni = 3.5	Cu = 26.0 Mn = 7.0	Ag = 49.0 Zn = Bal. Ni = 4.5	Cu = 16.0 Mn = 7.5	Ag = 38.0 Zn = Bal. Ni = 3.5	Cu = 26.0 Mn = 7.0	Ag = 49.0 Zn = Bal. Ni = 0.5	Cu = 26.0 Mn = 2.5
Melting range [°C]	680 - 700		680 - 705		680 - 700		680 - 705	
Melting range [°F]	1260 - 1292		1260 - 1290		1260 - 1292		1260 - 1290	
Density [g/cm ³]	8.7		8.9		8.8		9	
max. shear strength [N/mm ²]*	–		–		194.5		196.1	

* average frictional shear strength of the tungsten carbides with steel brazing alloy (circular saw blade) determined by vohtec laboratory GmbH in the context of the exploration of the strength of the brazing alloy A 338, the strength of the brazing alloy depends on the quality of the tungsten carbide.

Note: The strength of the brazing alloy depends on the quality of the tungsten carbide.

For further information about the brazing alloy visit our website www.voestalpine.com/welding