Schematic „family tree“
for self-fluxing Ni alloys for special applications

Deutsche Edelstahlwerke

Member of Swiss Steel Group

Powder Processing, PTA welding or Brazing

-P, +Cr

4697.05	DEW HTL 6-P	
MP	HTL 6	BR
	DIN EN ISO 17672: Ni 700	Ab
	AWS: A 5.21: no specification	HTW
Brazing		B, ++

C	P	B	Cr	Fe	Ni
<0,06	11,0				Rest

-P, +Cr, +Si

4697.06	DEW HTL 7-P	
MP	HTL 7	BR
	DIN EN ISO 17672: Ni 710	Ab
	AWS: A 5.21: no specification	HTW
Brazing		B, ++

C	P	B	Cr	Fe	Ni
<0,06	10,0		14,0		Rest

-Si, -Cr, +B, +Fe

4697.49	DEW SZW 5050	
MP	HTL 5	BR
	DIN EN ISO 17672: Ni 650	Ab
	AWS: A 5.21: no specification	HTW
Brazing		B, ++

C	Si	B	Cr	Fe	Ni
<0,06	10,0		19,0		Rest

4697.50	DEW SZW 5052	58
MP	HTL 2	BR
	DIN EN ISO 17672: Ni 620	Ab
FW, FS, PS, H	AWS: A 5.21: no specification	HTW
Brazing		B, ++

C	Si	B	Cr	Fe	Ni
<0,06	4,5	3,2	7,0	3,0	Rest

Powder for Brazing or Brazing Pastes

Powder for PTA-welding Ni-Powder as matrix for mixing with FTC

+B

4697.16	DEW Niborit 20-P	42
MP		RF, BR
P	DIN EN 14700: no specification	Ad, Ab
	DIN EN 1274:2004: Nenn-Nr. 2.2	
	AWS: A 5.21: no specification	B, ++

C	Si	B	Cr	Fe	Ni
<0,05	3,0	2,0		2,0	Rest

4697.45	DEW SZW 5022	55
MP		RF, BR
P	DIN EN 14700: no specification	Ad, Ab
	DIN EN 1274:2004: Nenn-Nr. 2.2	
	AWS: A 5.21: no specification	B, ++

C	Si	B	Cr	Fe	Ni
0,03	3,0	3,0			Rest

a	DEW Brand	f
b	Alloy Type	g
c		h
d	EN-/ISO-/DIN-Norm	i
e	AWS-Norm	k

C	Si	B	Cr	Fe	Rest
0,8	4,0	3,0	15,0	3,0	Rest

a. DEW material No.
b. Product form
c. Welding technique
d. Thermal spraying
e. Powder met.

f. Hardness
g. Coating characteristic
h. Wear type
i. Thermal resistance/hardness
k. Corrosion resistance

Explanation:
b. Product form: MP (metal powder), R (Rod)
c. Welding technique: P (PTA), T (TIG), G (Gas)
d. Thermal spraying: FK (Cold), FW (Hot), SW (Spray welding), PS (Plasma spraying), H (HVOF)
e. Powder met.: HIP (Hot isostatic pressing)
f. Hardness: HRc
g. Coating characteristic: RF (Crack free), BR (Conditionally crack free)
h. Wear type: Ab (Abrasion), Ad (Adhesion), KV (Cavitation)
i. Thermal resistance/hardness (HTW)
k. Corrosion resistance: S (Acid), B (Bases), ---/--/-/+/++/+++ Ranking

rev. 10/2013

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Increasing hardness with increasing B-content