

Product data sheet

Product **Various**
 Date various
 Release various **Solder paste**
 Language **English**

BALVER ZINN[®]

COBAR[®]

Legend	
5	<i>Especially made for this purpose</i>
4	<i>Generally qualified for this purpose</i>
3	<i>Generally usable, but not the best choice</i>
2	<i>Generally not usable for this purpose</i>
1	<i>Wrong choice</i>

PASTE	SAC3-XM3S	S9M-XM3S	S6M-XM3S	S62-XM3S
PROCESS				
No-Clean process	5	5	5	5
Post-solder cleaning	3	3	2	2
Vapor phase process	4	5	5	4
INDUSTRY APPLICATION				
Consumer electronics	3	3	4	4
Standard industrial electronics	4	4	5	5
Hi-Rel electronics (automotive)	5	5	5	5
PCB CAPABILITY				
Fine-pitch (= < 0.5mm)	4	4	4	4
OSP compatible	4	4	4	4
Ni/Au compatible	5	5	4	4
Ag/Pd compatible	3	3	3	3
Ni/Pd compatible	3	3	4	4
Ag compatible	4	4	3	3
Sn compatible	4	4	4	4
PROCESS CAPABILITY				
Pb-free Profile Air, short	4	4	2	2
Pb-free Profile Air, long	3	3	1	1
Pb-free process N2	5	5	3	3
Squeegee	5	5	5	5
ProFlow	4	4	4	4
Rheopump	TBD	TBD	4	4
Dispensing [>awg 22]	2	2	2	2
Short cycle time	4	4	4	4
Long stencil-life	5	5	5	5
Long open time	5	5	5	5
Sharp print definition	4	4	4	4
Reduces dog ears	4	4	4	4
Reduces smearing	4	4	4	4
Reduces stencil wiping	4	4	4	4
Reduces solderballing	4	4	4	4
Reduces solder beading	4	5	4	4
Reduces bridging	4	4	4	4
Reduces tombstoning	4	5	5	4
Reduces de-wetting	4	4	5	5
Reduces slumping	5	5	4	4
Reduces voiding	5	5	4	4
Brilliant joint appearance	4	3	3	5
Cosmetic cleanliness	4	4	5	5
ICCT compatible	5	5	5	5
Conformal coating	5	5	5	5

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CLASSIFICATION	SAC3-XM3S	S9M-XM3S	S6M-XM3S	S62-XM3S
ISO 9454-1	1.2.2.C	1.2.2.C	1.2.2.C	1.2.2.C
IPC-J-STD-004	REL1	REL1	REL1	REL1
IPC-J-STD-005 (Powder)	T3	T3	T3	T3

ALLOY CODE				
Flux code	M3S	M3S	M3S	M3S
Alloy code	SAC3	S9M	S6M	SN62
Particle class acc. IPC	Type 3	Type 3	Type 3	Type 3
Particle size [µm]	25-45	25-45	25-45	25-45

PROPERTIES				
Liquidus [°C]	219	221	183	179
Solidus [°C]	217	217	179	179
Recommended peak temp. [°C]	232-250	232-250	205-225	205-225
Oxide content powder [ppm]	<1500	<1500	<1500	<1500
Acid number [mg KOH] +/- 5%	60,7	60,7	80,7	80,7
Halides [Silver-Chromate Test]	pass	pass	pass	pass
Halides [Potentiometric]	detected	detected	pass	pass
Flux [% w/w]	10,88	10,89	9,71	9,70
Metal [% w/w]	89,12	89,11	90,29	90,3
Filmformer(s)	Resin	Resin	Resin	Resin
Color of the residue	Colorless	Colorless	Colorless	Colorless

Viscosity @ 25°C [Pa.s]				
Plate/Plate Tol+/-[%] 18	160	160	150	150
Malcom PCU205 Tol+/-[%] 18	150	150	140	140
Max. speed [mm/sec]	130	130	130	130
Rec.separation speed [mm/sec]	10	10	10	10
Tackiness time 20°C/70%RH [H]	18	18	16	16
Tackiness force Malcom TK1 [gr]	110	110	110	110

TEST REPORTS				
Telcordia GR-78-CORE	Compliant	Compliant	Compliant	Compliant
IPC/ANSI-J-STD-005	Compliant	Compliant	Compliant	Compliant
Certificate of Compliance	Website	Website	Website	Website
SPC-data	Auditable	Auditable	Auditable	Auditable
RoHS-Compliant	Available	Available	No	No
User's Guidelines	English	English	English	English

PACKAGING AND STORAGE				
Packaging jar	500	500	500	500
Packaging cartridge	650	650	650	650
Packaging cartridge	1300	1300	1300	1300
Packaging Cassette Pro-Flow	800	800	850	850
Recommended shelf-life in months				
Storage temperature 4-10 °C	6	6	6	6
Storage temperature 18-25 °C	4	4	2	2

Check material compatibility with every process change!
 Industrial chemical product.
 Read MSDS before use.