

TAMURA ELSOLD

Solder Paste

Since the beginning of 2020, TAMURA ELSOLD GmbH has been producing TAMURA solder pastes of the highest quality in a newly built solder paste production facility in Ilsenburg under clean room conditions using state-of-the-art equipment. After only 10 months between the ground-breaking ceremony in March 2019 and full commissioning, this represents a major step in the German-Japanese cooperation and TAMURA ELSOLD GmbH's membership in the TAMURA family, which has been in existence since 2017. European customers will thus benefit even more from the combination of international know-how and now significantly shorter delivery distances.

The solder pastes for printing processes formulated in the Japanese development centre offer a solution for almost every application. The focus is on SAC305 T4 pastes (TLF-204), with other grain sizes available on customer request, led by TLF-204-171AK with optimum printability even at high speeds and excellent soldering results.

In addition to these and other solder pastes for printing processes now produced in Germany, the well-known contacts of TAMURA ELSOLD GmbH naturally also offer comprehensive advice and support for the other TAMURA solder pastes for special processes and with special properties, whether for high-performance jet dispensing processes, laser soldering or for applications with high thermal and dynamic loads.

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TLF-204-171AK

Fast and Universal



- Perfect Printing at High Speed
- Excellent Soldering and Wetting
- Improved BGA Head in Pillow Resistance
- Safety Verified by SIEMENS CT

UN Not applicable

TLF-204-171AK

Lot No.200120 - LPR1027

Expiry Date 07-20-2020

NET 500 g

TAMURA CORPORATION

0.5 mmP BGA



TLF-204-111M

Robust and Bright

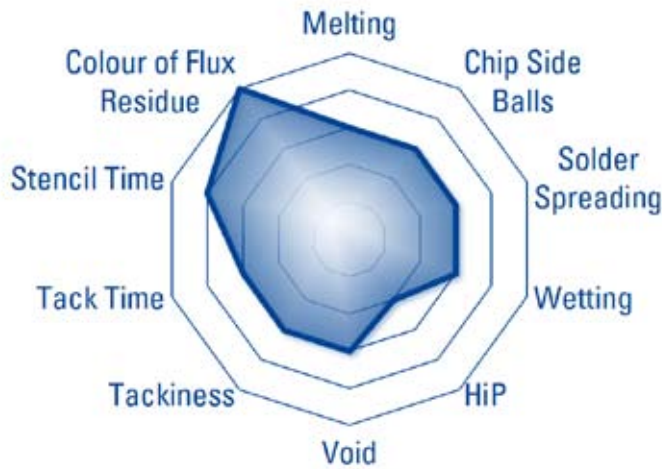
SAC
305

Pb
free

T4

RO
LO

Print



- Balanced and Robust Property
- Colourless and Soft Flux Residue
- Superior in Simple and Short Ovens
- Safety Verified by SIEMENS CT

Delivery Forms and General Product Information

Pastes for Printing

- Slip Lid Jar 500 g white / white-yellow
- Screw Cap Jar 500 g blue-green, yellow, green, white
- Pro-Flow Cassettes
- Cartridges 6 oz
- Cartridges 12 oz

Pastes for Dispensing

- Syringes 10 cc
- Syringes 30 cc



If required, please ask for other grain sizes, alloys and adapted flux contents/viscosities for all solder pastes. We are happy to fulfil (almost) all your wishes.

TLF-204-191

Activity for Perfect Wetting



- Excellent Wetting on Various Metals
- Avoid Solder Wetting Defects
- Perfect for Difficult Soldering Jobs

Brass



**42 Alloy
Nickel-Iron**



Nickel



**Nickel-
Silver**



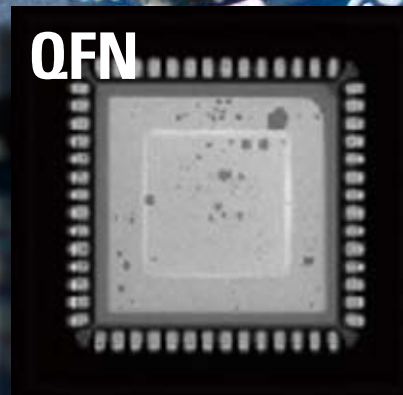
TLF-204-GT01

Avoid a Void



- Excellent Void Reduction, Independent of Reflow Profile
- Perfect for QFN
- Fast Printing & Reliable Soldering

QFN



Pwtr



TLF-204-NH(20-36)

Halogen- and Halide-Free



- 100% Halogen- and Halide-Free
- Highest Safety Against Corrosion and Electromigration

TLF-204-203

For Pin-In-Paste

SAC 305

Pb free

T4

RO LO

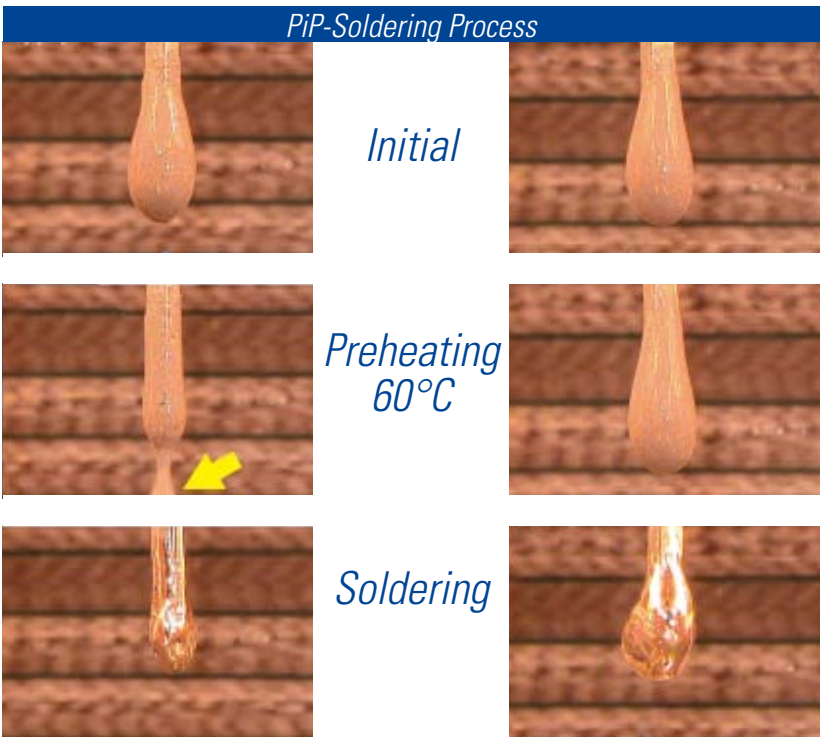
Print



- No Paste Outflow in Pin-in-Paste/ Through-Hole Reflow Processes
- High Reliability by Crack-Free Flux Residues at Thermo Cycling

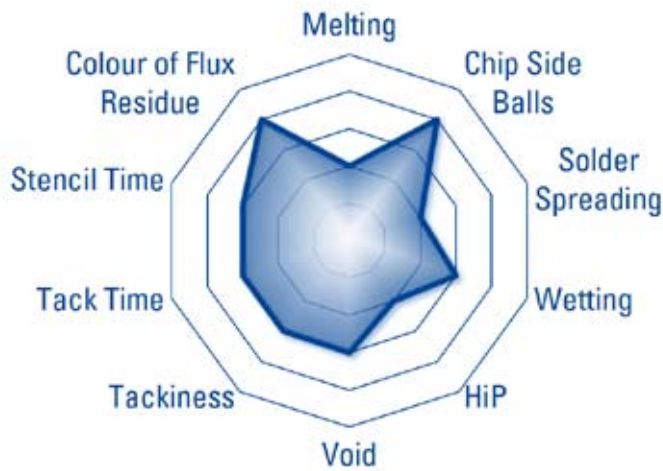
Conventional Rosin-Based Solder Paste

TLF-204-203



GP-213-NH15S

Low-Silver



- Halogen- and Halide-Free
- Just 1% Silver for Reduced Costs
- Perfect for Consumer Electronics and White Goods

TLF-204-GTS-VR1

Anti-Crack Flux

SAC
305

Pb
free

T4

RE
L1

Print

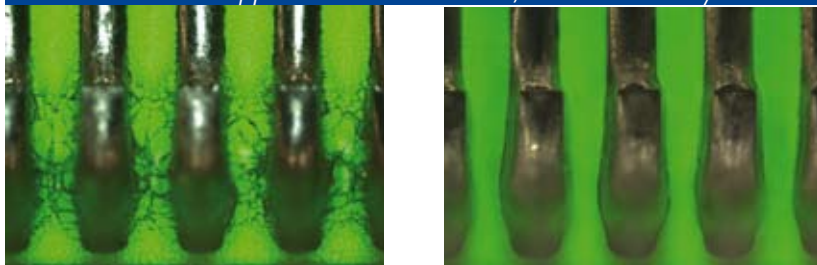


- Crack-free Flux Residues also at High Dynamic Stresses
- Prevention of Crack Induced Corrosion and Electromigration
- Improved Joint Reliability by Adhesive Effect and Mechanical Stability of Residues

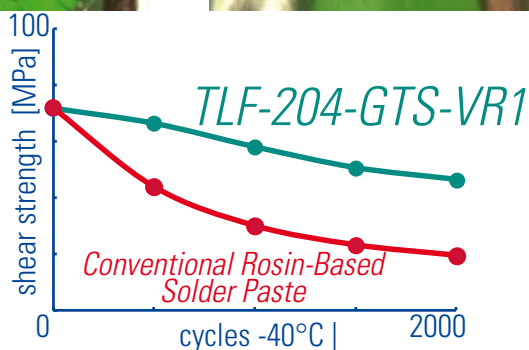
Conventional Rosin-Based Solder Paste

TLF-204-GTS-VR1

Flux Residue Appearances after -40°C / +125°C 1500 cycles



No Crack Induced Electro-Migration with TLF-204-GTS-VR1



TLF-287-GTS-VR6

High-Reliability Paste

SAC
SbBiNi

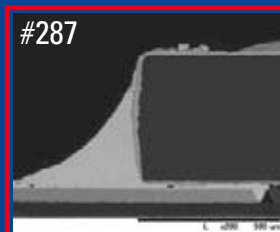
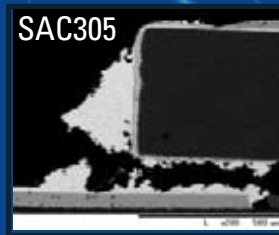
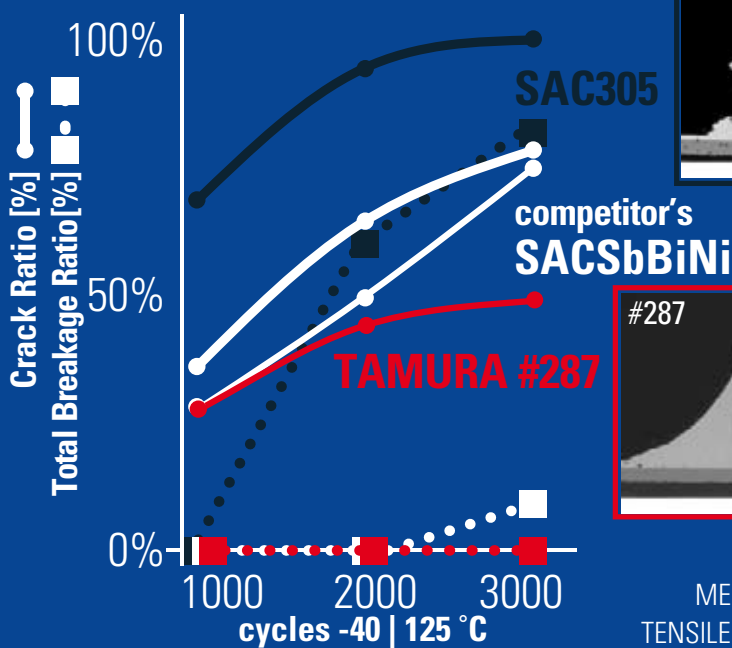
Pb
free

T4

RE
L1

Print

- Alloy #287:
The New Benchmark of Reliability and Lifetime
- Perfectly Suited for Automotive Applications by Highest Crack Resistance at Thermo Shock Cycle up to -40 °C | +150 °C
- Reduced Polycrystallization and Growth of Intermetallic Phases
- Perfect Combination of Solder and Flux for Highest Reliability
- Crack-free Flux Residues also at High Dynamic Stresses
- Prevention of Crack Induced Corrosion and Electromigration
- Improved Joint Reliability by Adhesive Effect and Mechanical Stability of Residues



	SAC305	#287
MELTING RANGE [°C]	217-219	209-226
TENSILE STRENGTH [MPa]	41	99
CRACK RATIO [%]	95.6	47.0
3000 CYCLES -40 125 °C		

LSM10 Series

Laser Soldering Paste

**SAC
305**

**Pb
free**

T4

**RO
MO**

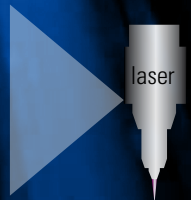
Dispens

- Extrem Low Spattering
- Perfect for Fast Laser Heating
- Typical Soldering Time: 0.3 sec.
- Easy Cleaning (if required)
- Absolute Stable Dispensing for More Than 30,000 Shots
- **LSM10-204-NH03:**
Improved Stability and Lowest Slumping
also Suitable for Hot-Plate, IR, ...
- **LSM10-204-02:**
Improved Wetting, also for
Difficult to Solder Surfaces
- **LSM10-401-02W-TR1:**
SnBi58 T3 (under development)

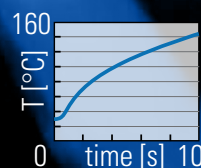
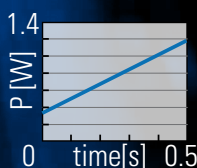
**Conventional
Paste**



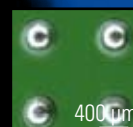
**LSM Series
Paste**



**automatisation
with
higher quality
and
process stability**



LSM (SAC305)



LSM (SnBi)

JDS Series

Jet Dispensing Paste



- Perfectly Suitable for MY600 and MY700
- Easy to Adjust Deposit Shape and Volume
- 180 Day Shelf Life
- Further Jet Pastes for Other Jet System Available on Request

JDS204F-MJ21-HF

- T5 (15-25 μm)
- 315-520 μm dot size
- 300-400 dot/sec.

JDS204G-MJ21-HF

- T6* (8-18 μm)
- 190-250 μm dot size
- 200-250 dot/sec.

Conventional Paste



JDS Series Paste



AP-10-Series

For Lead and Bismuth

SnBi

SnPb

T3
T4

RO
L1

Print
Dispens

- Perfect for Lead Solder Pastes and Low-Melting SnBi-Pastes
- For Printing and Dispensing
- Different Variations for Each Application
- Safety Verified by SIEMENS CT

			Print	Dispens
BiSn42	139°C	T3	90.0%	86.5%
BiSn42Ag1	137-139°C	T3	90.0%	86.5%
BiSn(Ag) +SAC305	150-200°C adjustable	T3		87.0%
SnPb63	183°C	T3	90.0%	87.0%
		T4	88.0%	88.0%
SnPb62Ag2	179°C	T3	90.0%	87.5%
		T4	90.0%	87.5%
PbSn5Ag2.5	287-296°C	T3	90.0%	

AP-20 Series

SM-388 Series



- For Printing and Dispensing
- Different Variations for Each Application
- Safety Verified by SIEMENS CT
- AP-20: 100% Halogen- and Halide-Free and Highest Safety Against Corrosion and Electromigration
- SM-388: Improved Activity and Wetting

			Print	Dispens
SAC305	217-219°C	T3	88.5%	87.0%
		T4	88.0%	86.0%
		T5	87.5%	86.0%
		T6	87.0%	86.0%
SAC305 MA	217-219°C	T4	88.0%	
SN100Ag3MA-S	217-219°C	T4	88.0%	
SC07	227°C	T3	88.0%	





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