

Kester's Product Focus Newsletter

Q2 2018



Paste Products

NP560 Solder Paste with SAC305 Alloy (No-Clean, Low Voiding Solder Paste)

Low voiding potential < 10%, low solder balling & graping, excellent activity levels & printability. Long UNREFRIGERATED shelf life that can have some cost saving impact on storage as well as on process paperwork. This can be a good drop in replacement for customers using ROL1, ROL0, REL0 type of paste from our competition in general markets. This paste has excellent printability and is very handy on the stencil. It also has a long stencil life. This is being evaluated now at a few big players around the world with very good feedback on its LOW VOIDING. NP560 has the potential of zero voiding when used in vacuum reflow ovens. Below are the standard part numbers which are also on the pricelist.

Part number	Description
41500696	NP560 Sn96.5Ag3.0Cu0.5 T4 88.3% 500g JAR
41500697	NP560 Sn96.5Ag3.0Cu0.5 T4 88.3% 600g CRT

NP505-LT Solder Paste with SnBiAg1 Alloy (No-Clean, Low Temperature Solder Paste with MP 140C)

Being evaluated where specific high temperatures restrict a good result such as use of plastics and other "soft" materials on PCBs, or cheap or low temp resistant substrates (flex foils, laminated paper). This paste can be used also a "step soldering process", where multiple SMT reflow cycles are applied and the previously soldered components cannot be re-melted. Targets include medical and aerospace segments, as well as other consumer electronics or industrial uses, although used extensively in TV or Monitor manufacturing. This paste needs different profile settings than SAC alloys and traditional SnPb. Below are the standard part numbers which are also on the pricelist.

Part number	Description
41510037	NP505 LT Sn42Bi57Ag1 T4 89.5% 500g JAR
41510038	NP505 LT Sn42Bi57Ag1 T4 89.5% 600g CRT

NP545 with Sn63Pb37 and Sn62Pb36Ag2 Alloys (Tin/Lead version of NP545)

Potential high volumes in EMS and contract houses, and has the benefits of a wide printing process window that lead-free NP545 has. Has backwards compatibility with other SnPb products (LF components in Reflow etc.). NP545 can be of good use in military establishments where leaded materials are still favoured and material changes are extremely rare. This paste has a 6-month shelf life unrefrigerated that adds high benefit of using this on the shop floor. The leaded version of NP545 has the same excellent printing characteristics as its' SAC alloyed versions which we have available in low silver too. Below are the standard part numbers which are also on the pricelist.

Part number	Description
41500692	NP545 Sn63Pb37 T4 89.3% 600g CRT
41500693	NP545 Sn63Pb37 T4 89.3% 500g JAR
41500694	NP545 Sn62Pb36Ag2 T4 89.3% 500g JAR
41500695	NP545 Sn62Pb36Ag2 T4 89.3% 600g CRT
41500678	NP545 11.5% Sn99Ag0.3Cu0.7 20-38µ 500 g

Please refer to your Kester Technical Support for any assistance needed to target any of your customer for samples and also for onsite support!

Customer Testimonial:

A medical OEM approached a premier provider of complex, sophisticated electromechanical devices to build a very difficult board. Due to a fine operating sensor, the first pass yield result was experiencing 50% while having this assembly built at two previous EMS companies using a combination of water soluble paste and extensive board prep. The premier provider of complex, sophisticated electromechanical devices told the medical OEM they were going to use Kester's NP505-HR Solder Paste in combination with Kester's 268 Flux-Cored Wire without any type of wash. As a result, the yields improved to 100% first pass yields and the premier provider of complex, sophisticated electromechanical devices won the business. This is new incremental business for the premier provider of complex, sophisticated electromechanical devices and Kester due to the use of Kester's product to win this build. The medical OEM is bringing the premier provider of complex, sophisticated electromechanical devices more business as a result.



Chemical Products

- **Select-10™ Selective Solder Flux - THE ONLY OPTION FOR SELECTIVE SOLDERING**
Select-10™ was awarded by *Global SMT & Packaging* and by many of our customers. Contact Kester for samples.

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Customer Testimonial:

"We are currently in process of changing over our selective solder processes to use Kester Select-10™ Selective Soldering Flux. Kester assisted in our Design of Experiment (DOE) for the Select-10™ on current products. We have numerous challenges with the assembly designs that push the limits of the current flux and have long dwell on several pins to meet the fill requirements. We would also have to apply heavier amounts of flux to compensate in specific areas of the assembly.

Through the DOE many adjustments were made to profiles that improved the fill, and reduced the dwell and cycle times. The main focus for us was to improve the challenges of the barrel fill on the assemblies and reduce residues that can cause failures in ICT. The reduction in dwell and cycle time was an added benefit. We will be able to reduce the amount of flux we use, reduce residues, improve barrel fill on those difficult locations and reduce our cycle times. The Select-10™ will be a benefit to the entire selective solder process going forward."

-Continental Corporation



Wire Products

- **268 Flux-Cored Wire**

268 was designed preliminary for robotic soldering, but outperforms many of our ROM1 competitors on low flux and solder spattering while it has a zero-halogen formula. Although most robotic applications use only 0.6-1mm diameter wires due to the automatic solder feeding, Kester is capable to produce fine wires down to 0.25mm (0.010"). We offer these fine wires on spool sizes of 100g (for 0.25mm) and 250g (for 0.4mm/0.015") that can be handy for rework, touch-up or other low consumption workstations. Below are the standard part numbers which are also on the pricelist.



268 Flux-Cored Wire being showcased on a robotic machine in our booth at APEX.



268 Flux-Cored Wire was showcased in the New Product Corridor at APEX.

Part number	Description
40501113	K100LD 3.3%/268 .015 (0,4mm) 500 G Robo SPL
40501114	K100LD 3.3%/268 .020 (0,5mm) 500 G Robo SPL
40501115	K100LD 3.3%/268 .025 (0,6mm) 500 G Robo SPL
40501116	K100LD 3.3%/268 .031 (0,8mm) 500 G Robo SPL
40501117	K100LD 3.3%/268 .040 (1,0mm) 500 G Robo SPL
40501098	Sn96.5Ag3.0Cu0.5 3.3%/268 .020 (0,5 mm) 500 G Robo SPL
40501101	Sn96.5Ag3.0Cu0.5 3.3%/268 .031(0,8mm) 500 G Robo SPL
40501104	Sn96.5Ag3.0Cu0.5 3.3%/268 .040 (1,0mm) 500 G Robo SPL

Marketing & Communications Update

Upcoming Events: Kester will be exhibiting (booth# 4-553) at SMT Nuremberg June 5-7. We hope to see you all there.

LinkedIn: If you do not already, follow Kester on LinkedIn for the latest announcements about product launches and events.

<https://www.linkedin.com/company/kester>

Kester Materials: Please contact Michelle with any website or marketing needs.

Thank you for reading. We are constantly thinking about improving the contents. If you have any ideas to enhance our quarterly product summaries, or if you have any marketing needs or questions, please contact [Michelle O'Brien](#).