We are excited to announce the addition of Kunal Desai to the Product Management group. Kunal will be the Product Specialist for Paste, Chemicals and TSF products.

**Paste Products**
NP505-HR Solder Paste and RF550 Rework Flux won an evaluation at a key global EMS account.

R&D is continuing to work on new product developments this year. Projects in the pipeline for 2018 launch are:
- NP505-LT (No-Clean, Low Temperature Solder Paste)
- WP616 (Water-Soluble General Market Paste)

If you have any paste-related questions and updates, please contact Fil Marcial or Kunal Desai.

**Chemical Products**
SELECT-10™ Selective Soldering Flux won an evaluation at a key global EMS account.

R&D is continuing to work on new product development this year. Projects in the pipeline for 2018 launch are:
- Solar Flux

If you have any chemical-related questions and updates, please contact Fil Marcial or Kunal Desai.

**Wire Products**
Fine Wires: Please keep in mind Kester’s capability of producing 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”).

268 Flux-Cored Wire: Please inform Olga or Chad of any new evaluations/opportunities for robotic wire so that we can monitor the performance of the 268.

Wire Samples for trade-shows & distributor events: We are now supplying samples of 6ft (2m) lengths of solder wire for use as giveaways at trade shows, distributor events or mass sampling. Please let us know the exact wire needed and the number of samples (in increments of 50 is preferred).

If you have any wire-related questions, please contact Chad Showalter or Olga Spaldon-Stewart.
Preform Products

**Target Markets/Custormers:** Kester's focus is on large volume target customers for preforms. We are interested in learning about opportunities where volumes will be in the millions of units per year. Please inform [David Hu](mailto:David.Hu@kester.com), [Chad](mailto:Chad.Showalter@kester.com) or [Olga](mailto:Olga.Spaldon-Stewart@kester.com) of any high-volume opportunities in your area.

**Tape & Reel Packaging:** We've enhanced our T&R capabilities and are actively looking for customers with volume needs greater than 1 million pieces/year in T&R packaging.

**Low Voiding in Die Attach, IGBT and pQFN Applications:** We are actively wanting to better understand the needs/requirements of customers using preforms for die attach, IGBTs and pQFNs. Please contact [Chad](mailto:Chad.Showalter@kester.com) or [Olga](mailto:Olga.Spaldon-Stewart@kester.com) if you have customers using preforms in these applications.

If you have any preform-related questions, please contact [Chad Showalter](mailto:Chad.Showalter@kester.com) or [Olga Spaldon-Stewart](mailto:Olga.Spaldon-Stewart@kester.com).

**Semiconductor Packaging Materials**

**Stage Gate Project Updates:**
- TSF-WS917 addresses customer requests of solderability, temperature stability (no change in viscosity over a wide range) and cleanability with a halogen-free offering with an unrefrigerated shelf life of 1 year. These are the project specifications as identified through voice of customer. A new, improved sample has been completed, tested and sent to various customers in Asia in June. Waiting for customer’s evaluation results.
- The Ultra-Low Residue (ULR) no-clean TSF project continues with versions for both conventional reflow and the TCB process. ULR18 encountered bleeding and solderability issues when applied to JCET FCOL (Flip Chip on Leadframe) type of substrate last September. After various FCOL customer evaluations like JCET, TSHT, Diode and others, we still found wetting performance and voiding issues with ULR18G/F even though it had initial good results with TI Clark and resolved solder bridging issues with ST Micro. R&D came up with an improved formulation, ULR18H/I, to address the wetting and voiding issues; however, while the wetting improved, it created another void issue during slide fluxing process and strong, bad smell. JCET customer has failed this new formulation.

**Epoxy Update:**
- Kester continues to work with several potential OSCA-R material customers. Amkor rescheduled the validation for Q3 and ASECL is still waiting for customer decision on validation. Shunsin has decided to stop the OSCA-R validation at their end customer’s direction (APPLE) uses proven technology material like Namics underfill. The underfill version has gained approval at a major automotive supplier. Autoliv customer are currently working on their internal customer notification steps called PPAP.

If you have any semiconductor-related questions, please contact [Alex Orbacedo](mailto:Alex.Orbacedo@kester.com) or [Kunal Desai](mailto:Kunal.Desai@kester.com).
Marketing & Communications Update

Upcoming Events:

- **SMTA International**: Kester will be exhibiting (Booth 117) at SMTAI in Rosemont, IL on October 16-17.

Recent Events:

- **SMT Hybrid Packaging**: Kester exhibited (Booth 4-553) at SMT Hybrid Packaging in Nuremberg, Germany on June 5-7.
- **Philippine Semiconductor & Electronics Convention and Exhibition (PSECE)**: Kester exhibited at PSECE 2018 in Manila, Philippines on June 13-15.

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](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.