INDIUM CORPORATION®

Transfer Efficiency Variation

TRANSFER EFFICIENCY VARIATION

SOLDER PASTE MATERIAL
- Date of manufacture
- Water soluble
- No clean
- Tackiness
- Viscosity
- Metal %
- Alloy
- Powder size
- Shelf life
- Storage orientation
- Paste properties

ENVIRONMENT
- Storage temperature
- Temperature inside printer
- Temperature
- Relative humidity
- Time on stencil
- Housekeeping
- Time out of cold storage
- Shelf life
- Air movement inside printer

HUMAN INTERACTION
- Time of day
- Shift change over
- Seasonal
- Employee skill
- Operator error
- Employee knowledge level
- Training
- Operator access to printer settings
- Employee diligence

TOOLING & EQUIPMENT
- Stencil thickness
- Stencil wear
- Stencil length (overhang)
- Stencil material
- Squeegee angle
- Squeegee wear
- Squeegee material
- Squeegee thickness
- Squeegee depth
- Board support
- PCB planarity
- Solder mask consistency

PRINTING PROCESS
- Cleaning frequency
- Stencil gasketing
- Squeegee speed
- Squeegee pressure
- Separation speed
- Time between prints
- Dry clean cycle
- Wet clean cycle
- Amount of paste on stencil
- Enclosed print head
- Overprint distance

DESIGN
- Stencil technology
- Substrate design
- Squeegee design
- Aperture count
- Aperture shape
- Panelization
- Aperture reduction
- Aperture patterns
- Area ratio
- Step stencil
- Surface finish
- Pad spacing
- Aperture orientation
- Pitch dimension
- Board material
- Pad defined or mask defined
- Pad metalurgy