



Loctite Electronics

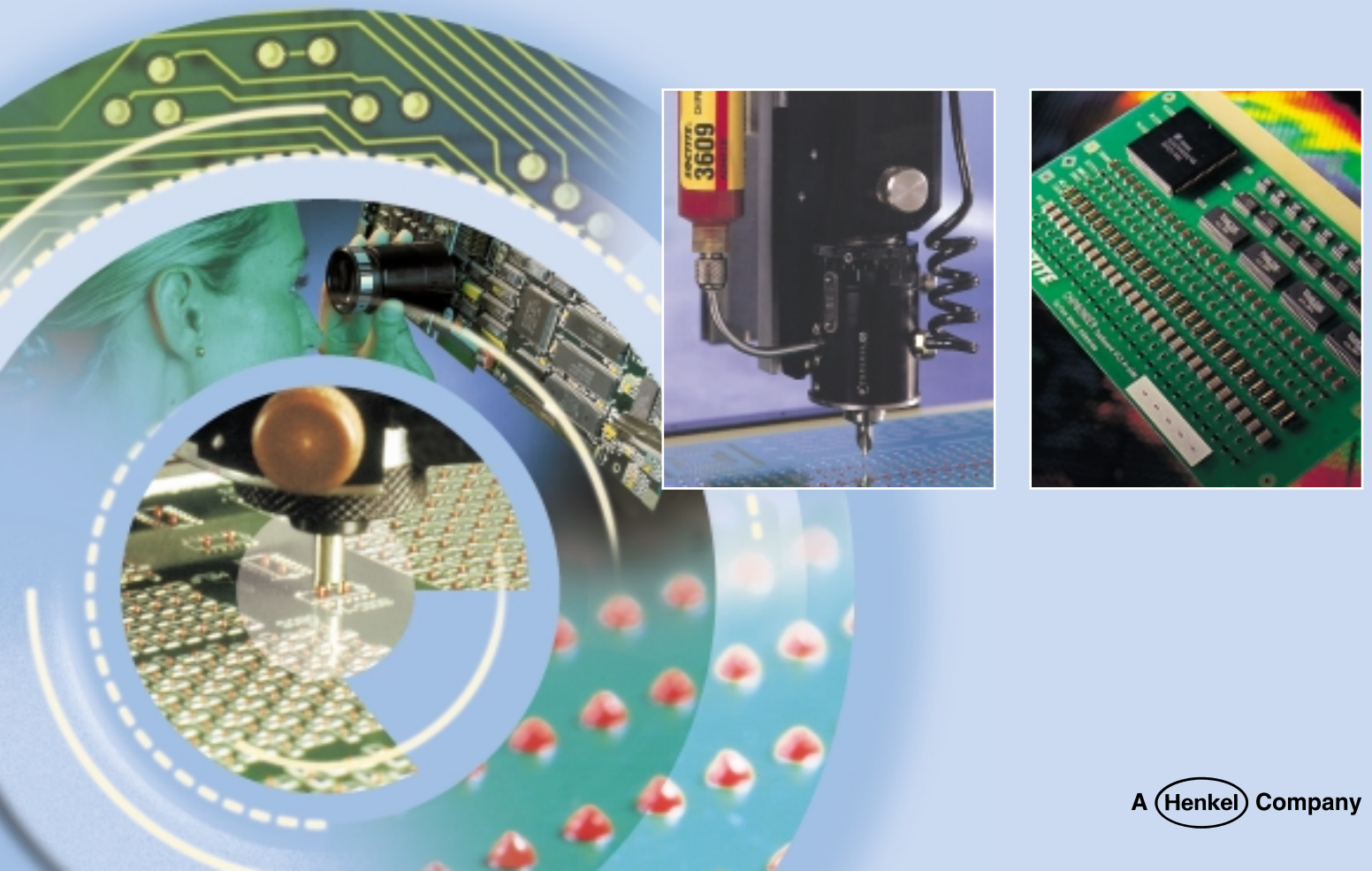
## Chipbonder® Surface Mount Adhesives (SMA)

Surface Mount Adhesives are used to hold components in place during component placement and soldering.

The manufacturer's on-going effort for reduced production times calls for faster adhesive deposition methods, faster chipshooters and reduced adhesive cure and solder cycles.

For many years Loctite® Chipbonders® have contributed to the improvement of production yield in PCB assembly. Loctite® has over 20 years experience in the development and production of SMA. This commitment enables Loctite® to offer assembly solutions to match the different SMA application technologies, syringe dispensing, printing and pin-transfer. The use of Loctite® Chipbonder® SMA ensures outstanding performance for each application method.

Loctite® is continuously adapting its Chipbonder® range to respond to the changing industrial requirements.



# Loctite® Chipbonder® Surface Mount Adhesives (SMA)

Loctite® Chipbonder® products meet all relevant SMA process requirements:

## Dot deposition without stringing

- Loctite® SMA advanced rheology ensures rapid, controlled dispensing without stringing at dispensing rates exceeding 50,000 dots/hour.
- Loctite® non-stringing SMA eliminate solder defects due to contamination of solder pads by adhesive.

## Consistent dot shape

- Loctite® Chipbonders® ensure consistent dot shapes and volumes even at highest dispensing speeds.
- Their remarkable consistency contributes to the goal of a zero defect process.

## High wet strength

- Even large components are held in precise, pre-determined positions – despite acceleration and deceleration forces experienced during placement, transport and cure.

## Flexible curing properties

- Loctite® Chipbonders® offer a wide process window for cure whilst maintaining full adhesive polymerisation.
- Temperature-sensitive components can be cured at lower temperatures.
- Loctite® SMA also withstand higher cure temperatures and as a result allow very short cure cycles.
- No slumping of the adhesive or component skewing occurs during the curing process.

## Prevent chip loss

- Loctite® Chipbonders® withstand thermal shock during wave soldering.
- The combination of adhesive strength and flexibility prevents chip loss.

## Electrical and mechanical properties

- High surface insulation resistance.
- Low ionic content to avoid electrolytic corrosion.
- After curing, the adhesives are inert, and will not stress components or have any negative effect on PCB electrical properties.

## Product quality

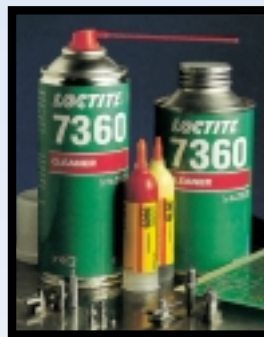
- Consistent batch-to-batch quality reduces machine set-up times.
- Small and controlled particle size avoids nozzle clogging.

## Application

Loctite® Chipbonders® can be applied using

- Syringe dispensing.
- Varidot and stencil printing.
- Pin transfer.

Loctite® Chipbonders® are used by key electronic manufacturers world-wide and meet international standards like Siemens SN-59651 or Bellcore TR-NWT-000078.



Loctite® 7360 is recommended for cleaning of stencils, screens and dispensing nozzles, and for removing uncured adhesives from misprinted circuit-boards.

## TECHNICAL SUMMARY

Loctite® Product	Dispensing speed		Wet strength	Colour	Cure temperature range (°C)	Shelf life (°C)	Special features
	Pressure time valve	Positive displacement valve					
3609	high	high	very high	dark red	Heat 100 – 150	6 months @ 2 – 8	For high speed dispensers, high dot profile.
3615	medium	high	very high	red	Heat 100 – 150	6 months @ 2 – 8	For difficult to bond components, extremely low moisture uptake.
3619	high	high	very high	red	Heat 80 – 150	10 months @ 2 – 8	Fast curing at low temperature.
3621	very high	very high	high	red	Heat 100 – 150	10 months @ 2 – 8	Very high speed dispensing.
3622	very high	very high	high	yellow	Heat 100 – 150	10 months @ 2 – 8	Very high speed dispensing.

## SYRINGE DISPENSING GRADES

## TECHNICAL SUMMARY

Loctite® Product	Printing	Wet strength	Colour	Cure temperature range (°C)	Shelf life (°C)	Special features
3612	Metal stencil printing	very high	yellow	Heat 100 – 150	9 months @ 2 – 8	Extremely low moisture uptake, high dot profile and high wet strength.
3616	Metal stencil printing	high	red	Heat 100 – 150	6 months @ 2 – 8	Extremely low moisture uptake and long on stencil life. High speed printing.
3617	Metal stencil printing	high	yellow	Heat 100 – 150	6 months @ 2 – 8	Extremely low moisture uptake and long on stencil life. High speed printing.

## SYRINGE DISPENSING GRADES

For detailed product performance information and application guidelines, please refer to Technical Data Sheets or contact Loctite®.