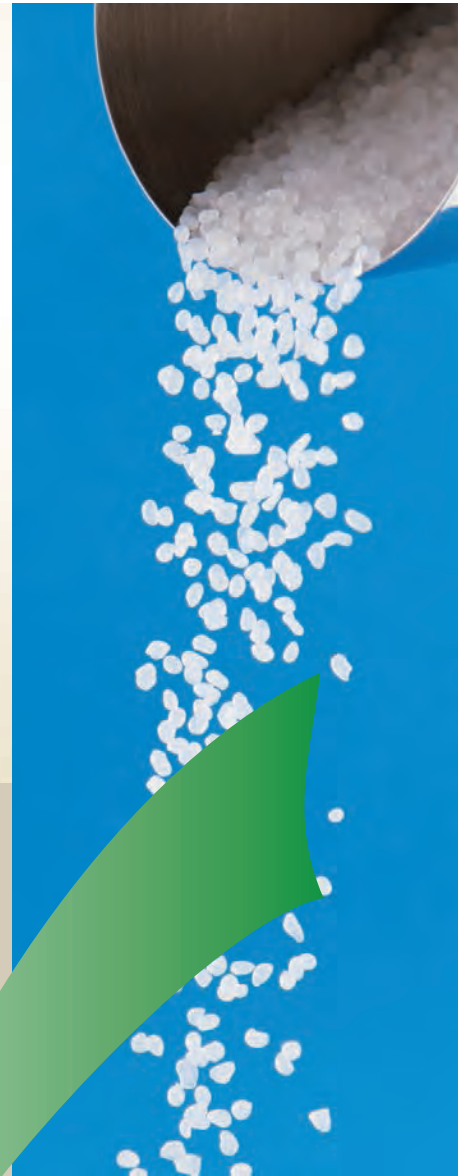


The Freedom™ System

Integrated Hot Melt Packaging Solution



The Packaging System that Pays You Back

Freedom from ...

✓ ... Adhesive Availability Concerns



- Henkel Technomelt® Freedom-certified adhesives are less affected by raw material supply issues
- Optimized formulations minimize the dependence on critical raw materials
- Based on an innovative polymer platform
- High performance adhesives designed to optimize Freedom solution performance

✓ ... Manual Adhesive Filling



- Uninterrupted production
- Adhesive pellets shaped to promote efficient transfer from fill system to melter, without agglomeration or clogging
- Closed system keeps out dirt, dust and debris
- Minimizes exposure to molten adhesive
- Prevents bending and lifting injuries associated with manual filling
- Reduces operator involvement and labor costs

✓ ... Confusing Controls and Diagnostics



- Minimizes troubleshooting and downtime
- Component I.D. functionality provides part and serial numbers and installation dates
- Displays diagnostics, alerts and fault messages in simple text
- Reduces need for training and skilled operators
- Intuitive, touch-screen interface
- Choice of languages

✓ ... Downtime Associated with Char and Contamination



- Superior adhesive temperature stability means less char
- Tankless melting further minimizes/eliminates adhesive degradation and char
- Prevents clogged filters, applicators and nozzles associated with conventional tanks
- Minimizes time-consuming maintenance and lost production
- Self-cleaning MiniBlue® II SureBead® applicators dissipate nozzle debris

✓ ... Parent Machine Mounting and Integration Limitations



- Saves machine space with vertical footprint and mounting
- Attaches almost anywhere with standard mounting bracket
- Controls can be placed at eye level with fixed or moveable mounting stands
- Allows conventional bench-top mounting on flat surfaces
- Eases hose routing with smaller diameter, energy saving hoses

✓ ... Excessive Adhesive Use



- Melts only the adhesive you need
- Saves adhesive from spilling and overfilling
- Excellent tack and bond strength lets you use one adhesive for multiple applications and packaging substrates
- Superior bonding reduces consumption and waste
- Eliminates traditional system flushing
- Intermittent bead dispensing capability enables significant adhesive use reduction

The Freedom Equipment

Optix™ Touch Screen Controls

- Text-based fault and diagnostic messaging
- Component identification functionality
- Various languages

Freedom Tankless Melter

- Virtually eliminates char
- Saves energy
- Mounts/integrates easily

Freedom Series Applicators

- Slim line, single or multi-module type
- Industry best service life
- Self-cleaning modules

Freedom Series RediFlex™ Hoses

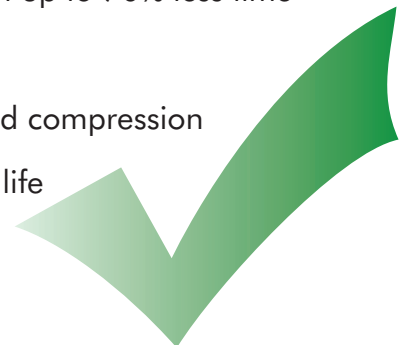
- Energy saving
- Easy routing with mounts
- Component I.D. enabled

Integrated Adhesive Filling

- Level monitoring window
- Quick change exhaust filter
- Quick-disconnect pump

Additional Features

- Eliminating melter tanks reduces energy use by up to 50%
- Increases productivity – melts and delivers Freedom-certified adhesives in up to 70% less time
- Energy-saving smaller diameter hoses
- Integrated hose mounts prolong hose life by eliminating sharp bends and compression
- Freedom MiniBlue II pneumatic applicators provide industry-best service life
- Freedom applicators' insulated covers reduce energy use up to 38%
- Unique chemistries reduce adhesive use and waste



A range of Technomelt® Freedom-Certified Adhesives

Designed to work hand and hand with Freedom equipment

| Freedom-certified adhesives including: | Application | Viscosity (Brookfield) | Open time | Optimal processing temperature |
|--|--|--|-----------|--------------------------------|
| The "Cool" Solution | Low application temperature | 930 cps @ 275F 625 cps @ 300F | Medium | 275F – 300F |
| The "Next Generation" Solution | Multi-purpose, high heat resistance, new hot melt generation | 1,470 cps @ 325F 1,030 cps @ 350F 750 cps @ 375F | Long | 325F – 375F |
| The "All arounders" Solution | Multi-purpose, high heat resistance | 1,185 cps @ 325F 820 cps @ 350F 595 cps @ 375F | Long | 325F – 350F |

Freedom-Certified Adhesives Benefits



- ✓ Excellent Bond Strength
- ✓ Improved Efficiency
- ✓ High Bonding Quality
- ✓ High Thermal Stability
- ✓ Excellent Flow Behavior
- ✓ Sustainable Adhesive Solution



**Experience the
Freedom System now!**

Please contact your Nordson or Henkel representative to calculate your system payback. Get to know how the Freedom System can improve your packaging operation and how to achieve competitive advantage.



Nordson Corporation
Phone: 800.683.2314
adhesiveleads@nordson.com
www.nordson.com/freedom



Henkel Corporation
Phone: 866.266.5565
freedom@henkel.com
www.henkel.com/freedom

