

**LOCTITE**<sup>®</sup>  
**BONDERITE**<sup>®</sup>  
**TECHNOMELT**<sup>®</sup>  
**TEROSON**<sup>®</sup>  
**AQUENCE**<sup>®</sup>

Adhesives, Sealants, Equipment and Services

# Air Filtration Solutions Mechanical Fluid Filtration Solutions



Henkel

## **Henkel.** Improving your process, understanding your challenges.

Proven filtration solutions for all your needs –  
today and tomorrow

Filter manufacturers face daily challenges – reducing costs, improving efficiency, and staying ahead of the competition, to name just a few. Many suppliers can offer an adhesive. But Henkel offers much more: Engineering expertise to integrate the adhesives into your manufacturing process, custom-formulated products to meet your specific application requirements, and the innovation pipeline to offer you a continuous stream of new and creative solutions.

**Henkel is in the business of solving problems.** With our history and experience in the filtration industry, our experts can help find ways to improve your process. We can show you how to reduce your adhesive consumption while improving filter efficiency. And we'll provide all the testing data to back up our recommendations.

**Let us show you the value Henkel offers.**



### INNOVATION

**More than 30%** of our sales comes from **products launched** in the past five years.



### GLOBAL SUPPLY CHAIN

to maintain a **reliable supply** of products to our customers.

### CUSTOMIZED SOLUTIONS

We will create the formula that meets your **exact** requirements.



## WHY HENKEL?

Henkel, **the leading solution provider for adhesives, sealants and functional coatings worldwide**, provides more than adhesives. We work with you to optimize your manufacturing process, identify improvements, and solve your toughest challenges.

**We're your partner every step of the way.**

### BROAD PRODUCT PORTFOLIO

to provide the optimum **solution** for your challenges.



### GLOBAL SUPPORT

no matter where in the world you're **located**.



### INTEGRATED MANUFACTURING PROCESS

to **ensure** our equipment works seamlessly with your production line.



### COMPREHENSIVE TESTING

to **support** our product and process recommendations.



### ENGINEERING SERVICES

**10 R&D centers** around the world staffed by 3,000 design and application **professionals**.

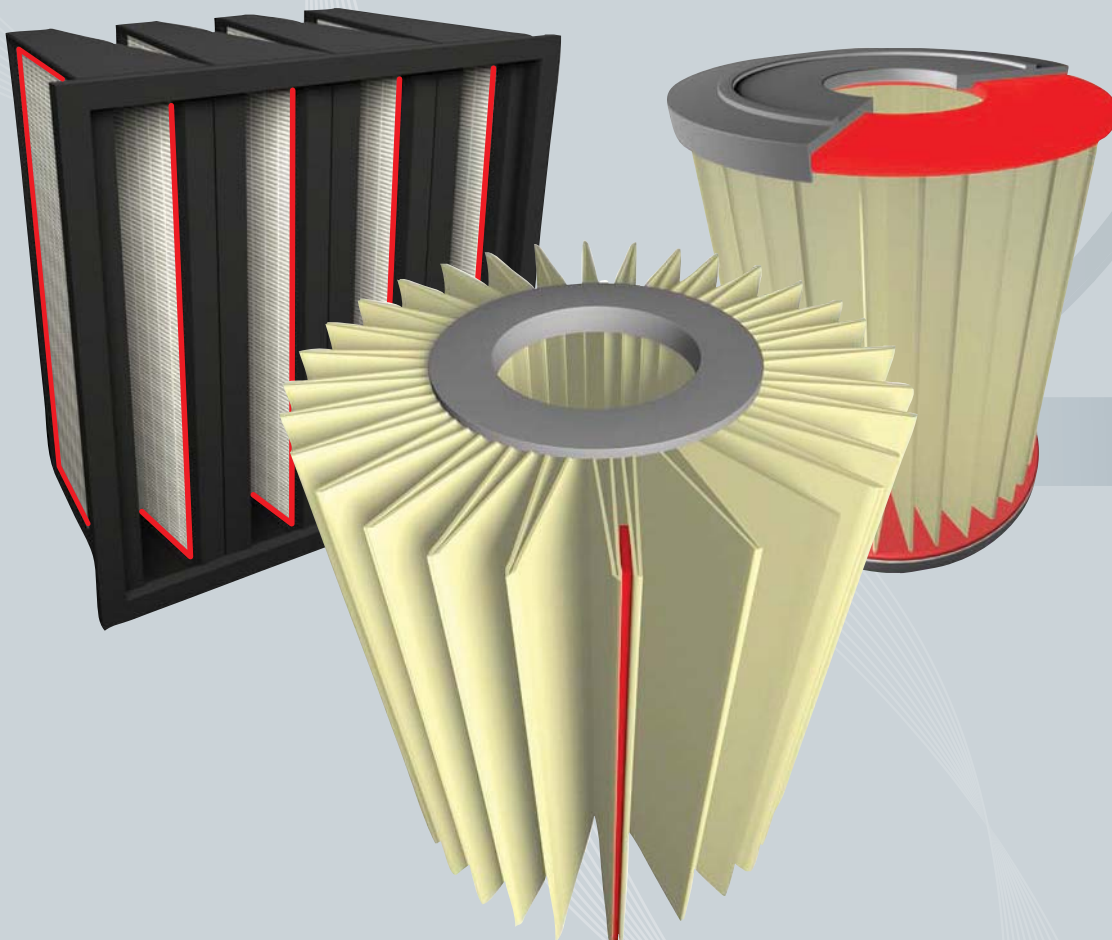




# Filtration Expertise and Value-Added Partnership

Henkel offers in-depth industry knowledge and the broadest technology portfolio in the business.

With a global team dedicated to the filtration industry, Henkel offers years of experience, support and expertise. Combined with our broad product portfolio, we can provide solutions for just about any product or process challenge.



## CHEMISTRY GUIDE | 6

Hot Melts . . . . .	6
High Performance Filtration Adhesives . . . . .	7
Hot Melt Overview . . . . .	8
General Bonding Overview . . . . .	9
Foaming Process . . . . .	11

## SOLUTIONS FOR AIR FILTERS | 12

Automotive Air Filters . . . . .	12
Industrial Air – High Efficiency Filters . . . . .	12
Industrial Air – Commercial and Residential Filters . . . . .	13
<b>Air Filters – Product Selection Guide</b>	
HEPA/ULPA . . . . .	14
HVAC . . . . .	18
Automotive and Heavy Duty . . . . .	22

## SOLUTIONS FOR FLUID FILTERS | 26

Mechanical Fluid Filters . . . . .	26
<b>Fluid Filters – Product Selection Guide</b>	
Mechanical Fluids . . . . .	28

## FUNCTIONAL COATINGS | 34

The Henkel Portfolio . . . . .	34
Nanotechnology Solutions . . . . .	36
Autodeposition Solutions . . . . .	37
Functional Coatings Product Selection Guide . . . . .	38

# CHEMISTRY GUIDE

Henkel offers a broad range of adhesives for filtration applications. The following is a brief overview of the various adhesives described in this catalog.

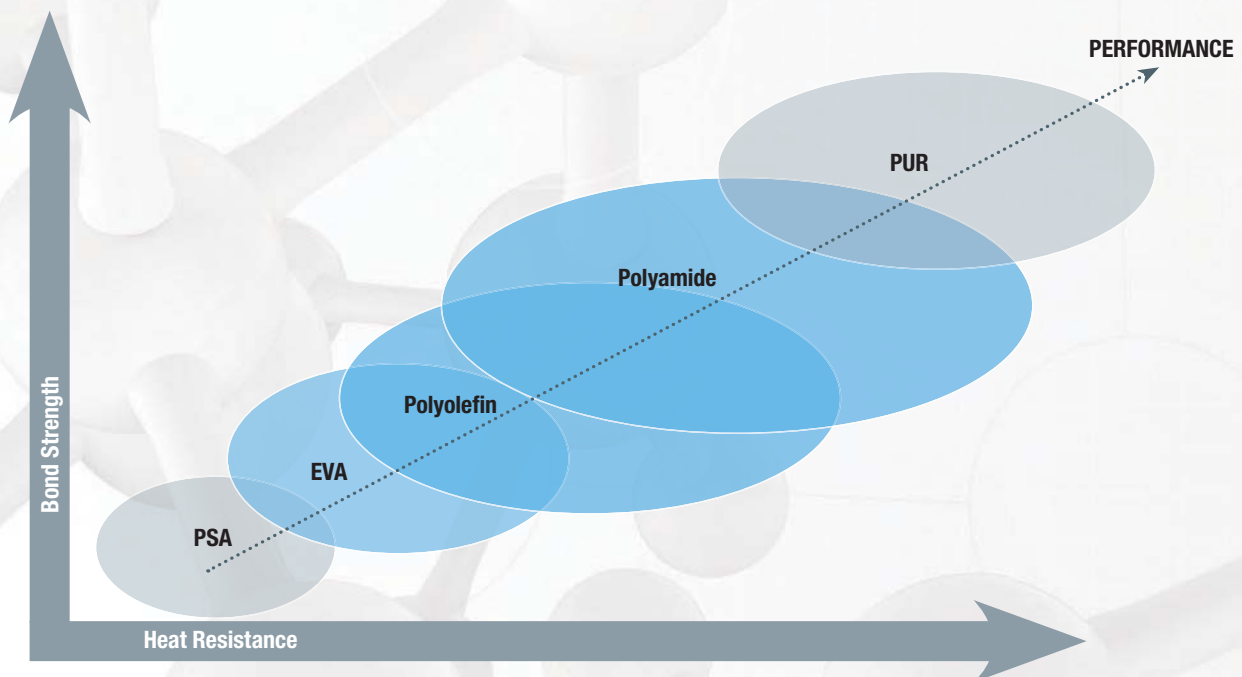
Your Henkel representative can help you identify the best adhesive for your application.

## Hot Melts (HM)

General purpose, most cost-effective adhesive for many filtration applications:

- **Pressure Sensitive Adhesive (PSA)** – Immediate fixture (permanent tack), broad adhesion to substrates
- **Ethyl Vinyl Acetate (EVA)** – Best foaming ability, general purpose, cost-effective
- **Polyolefin (PO)** – Broad range of adhesion, especially to hard-to-bond substrates; high strength and durability
- **Polyamide (PA)** – Fast setting and high bond strengths, higher temperature and chemical capabilities
- **Reactive Polyurethane (PUR)** – Higher temperature resistance and higher bond strength/durability (thermoset)

### HOT MELT CHEMISTRY SELECTION GUIDE

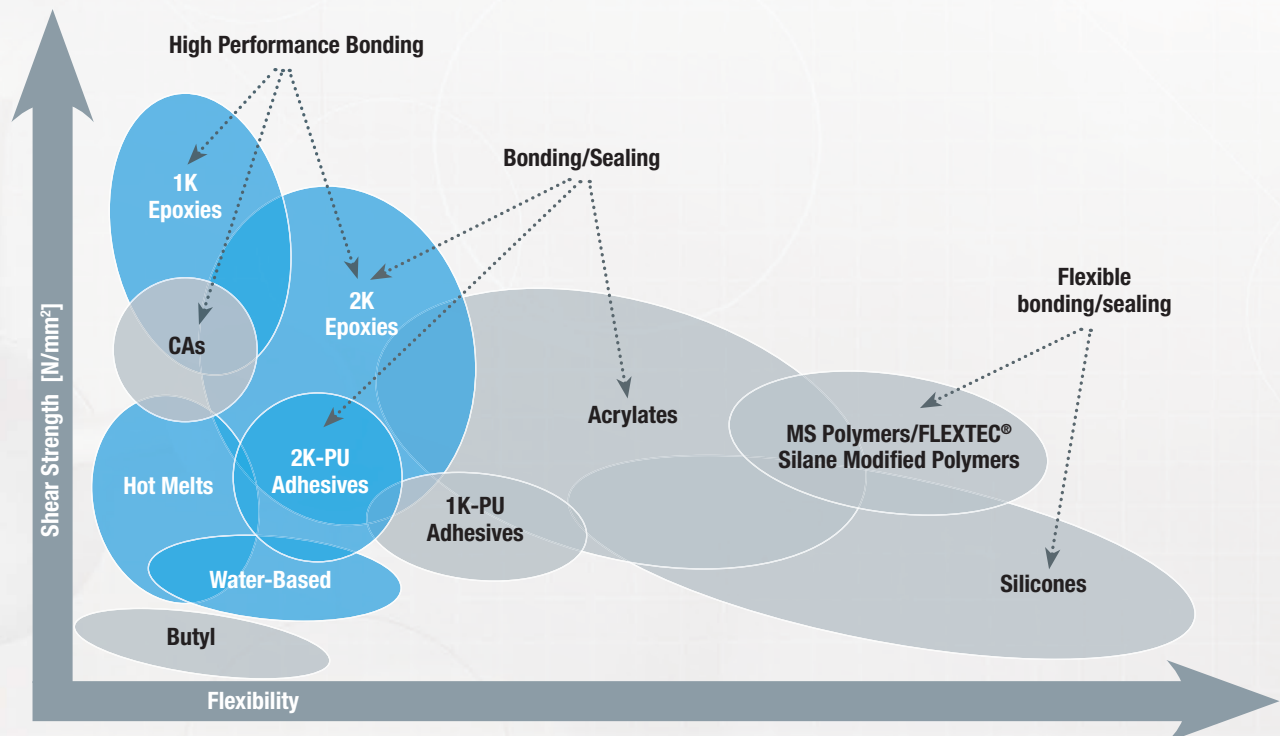


This diagram provides a comparison of the bond strength and heat resistance of various types of hot melts.

## High Performance Filtration Adhesives

- **Two-Component Polyurethane (2K PU)** – Better temperature and chemical resistance vs. hot melts. Requires two-part mixing.
- **Two-Component Epoxy (2K EP)** – **Better** chemical and **higher** temperature resistance. Requires two-part mixing.
- **One-Component Epoxy (1K EP)** – **Best** chemical and **highest** temperature resistance. Requires heat to cure.
- **Water-Based Polyvinyl Acetate (PVA WB)** – “White glue,” low cost, slow to moderate set time, generally used for paper and wood.

### GENERAL CHEMISTRY SELECTION GUIDE



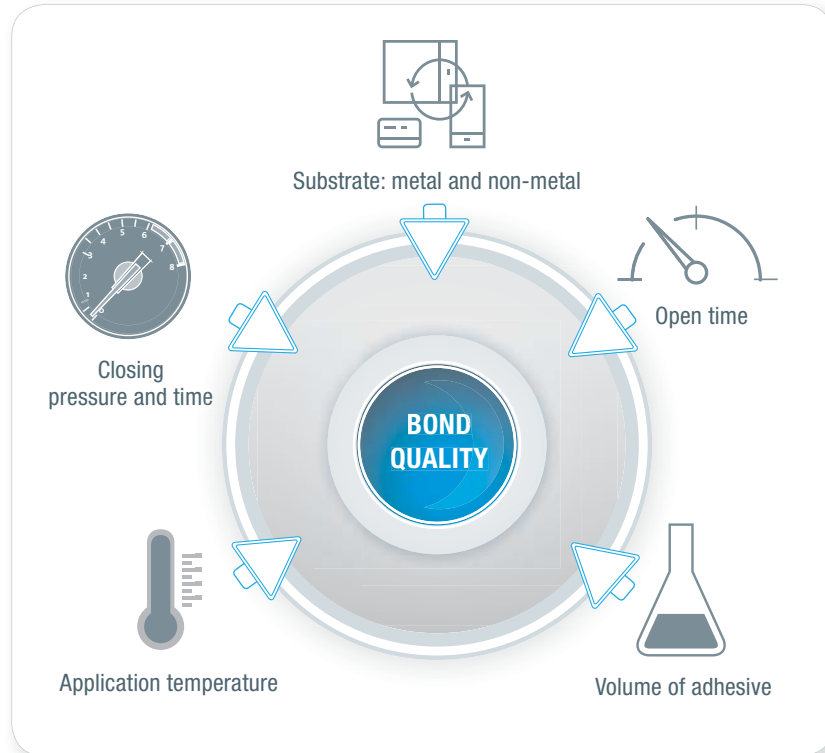
## CHEMISTRY GUIDE

## HOT MELT OVERVIEW

## Bonding Variables

Creating a good quality hot melt adhesive bond requires attention to several factors. Heat management through application temperature and volume, combined with time management, are critical to proper use of hot melt adhesives.

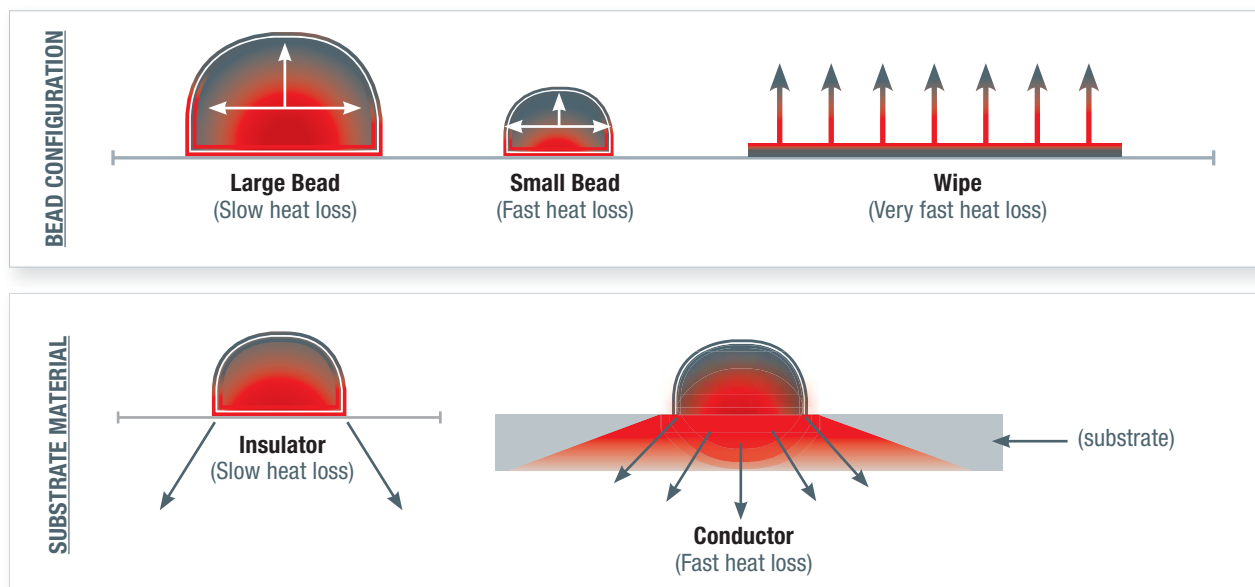
## FACTORS AFFECTING BOND QUALITY



## Bonding Processes

The shape and volume of the adhesive deposition is critical to how the adhesive loses heat. This will have a major effect on the open and set times of the adhesive. Similarly, the thermal conductivity of the substrate will also dramatically affect the rate of heat loss. The difference in open time between a large bead placed on an insulator vs. a film placed on a conductor will be dramatic.

## FACTORS AFFECTING OPEN/SET TIME





## GENERAL BONDING OVERVIEW

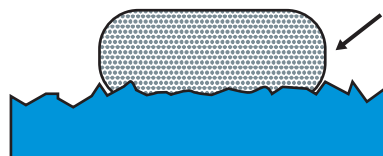
### Bonding Processes – Wetting

The ability of any liquid to attach itself to a substrate is called wetting. Wetting is driven primarily by the surface tension of the liquid and its relation to the substrate's surface energy.

#### WETTING

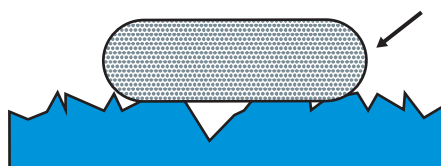
##### Good wetting

Substrate with relatively smooth surface



##### Poor wetting

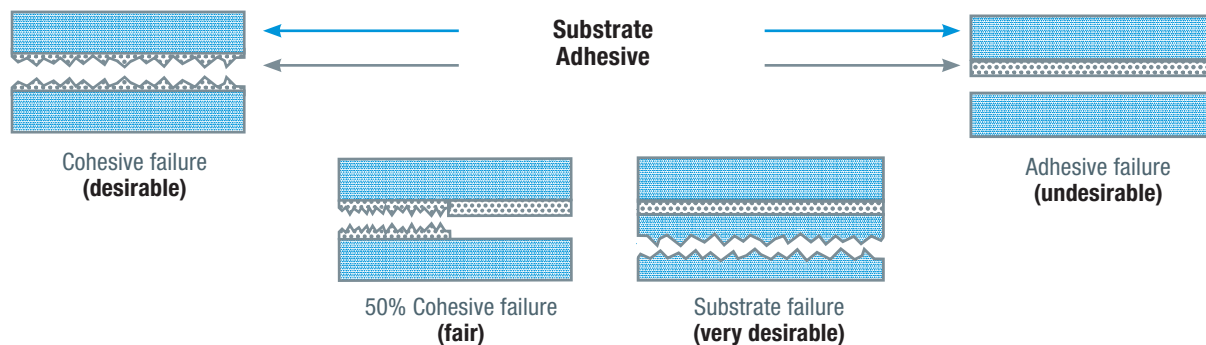
Substrate with relatively rough surface



### Bond Failures

When evaluating bond failures, it is important to note the type of failure to help determine the root cause. Having adhesive residue on both substrates indicates that the adhesive remained bonded but failed internally. This is called Cohesive failure. If either substrate comes away with no residue, then the failure is termed Adhesive failure, since adhesion to that substrate was lost. Sometimes the bonds can exhibit a combination of failure modes.

#### COHESIVE VERSUS ADHESIVE FAILURE



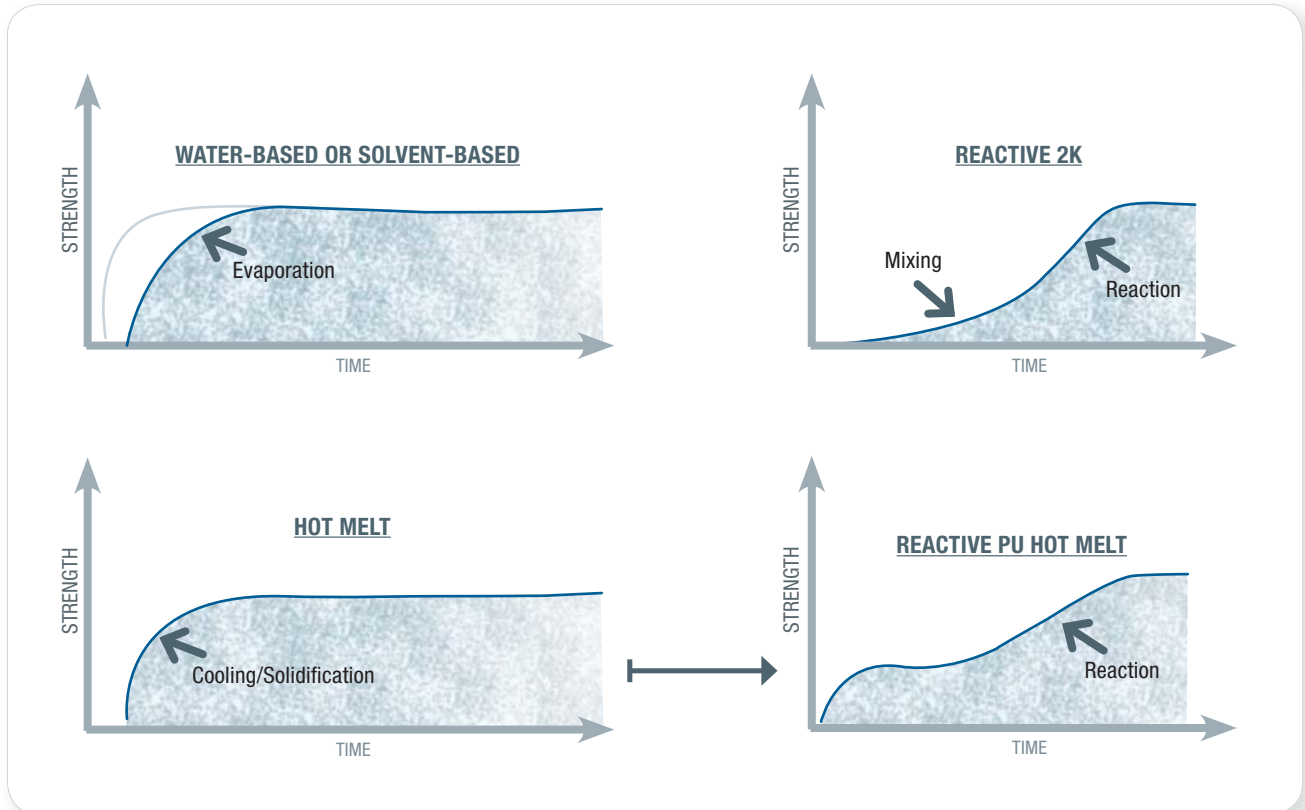
Henkel's technical experts can provide training on bonding processes and analysis, as well as recommendations on choosing the proper hot melt adhesive for your application.







Contact us at 1-800-562-8483.

CHEMISTRY GUIDE

GENERAL BONDING OVERVIEW

CLASSIFICATION OF ADHESIVES BY DEVELOPMENT OF ADHESIVE STRENGTH



<p><b>THERMOSET PROCESSING</b></p> <p><b>A + B = C</b></p> <p>MIX TWO (2) COMPONENTS ► CURE</p>	<p><b>THERMOPLASTIC PROCESSING</b></p> <p>HEAT ► LIQUEFY</p> <p>COOL ► SOLIDIFY</p>
<p><b>ANALOGIES:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Rubber Tire</p> </div> <div style="text-align: center;">  <p>Cement</p> </div> <div style="text-align: center;">  <p>Cake</p> </div> </div>	<p><b>ANALOGIES:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Chocolate</p> </div> <div style="text-align: center;">  <p>Ice</p> </div> <div style="text-align: center;">  <p>Metal</p> </div> </div>

## FOAMING PROCESS

### Reduced adhesive consumption, improved performance

Henkel offers a unique range of foaming hot melt adhesives for pleating applications that can reduce adhesive consumption up to 65 percent. Adhesive foaming technology combines inert gas with hot melt adhesives to create a homogenous, closed cell foam mixture. Foaming offers a number of advantages:

- **Increased open time:** Nitrogen bubbles insulate the material, increasing work time and offering more flexibility.
- **Faster set time:** Foamed materials require less force to compress, producing a thin bond line. The thin bond line decreases the set time for better production rates.
- **Volumetric increase:** Increased volume has better gap-filling capabilities to improve bond strength.
- **Reduced adhesive consumption:** Foaming can reduce material consumption up to 65 percent depending on the hot melt material.
- **Increased penetration:** Foamed hot melt penetrates porous material for a stronger bond.
- **Improved wetting:** Foam requires less force to compress, allowing penetration of impervious surfaces to enhance application versatility.
- **Lower heat density:** Foamed hot melt materials reduce thermal distortion of temperature-sensitive substrates and improve operator safety.
- **Reduced sagging or running:** The thixotropic nature of foamed material reduces the tendency of materials to run or sag on sloped surfaces.

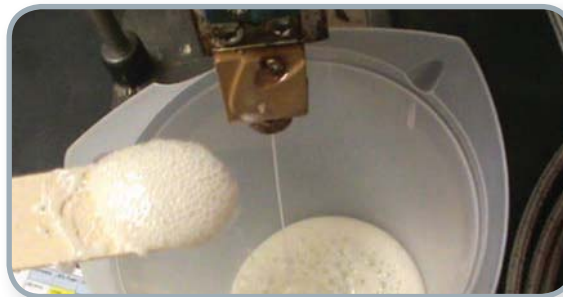
Foamed material can be applied in swirl, spray, bead or slot patterns.

Henkel's experts can test foaming adhesives for your application to optimize performance and meet your production requirements. **Consult your Henkel representative for more information on foaming.**

Good quality foam is required for consistent manufacturing. This image shows stable foam with enclosed bubbles, which creates a strong bond.



This image shows over-foamed adhesive, which results in unstable bonding. Henkel's technical experts can work with you to create the proper foaming rate for your application.



# SOLUTIONS FOR AIR FILTERS

Industrial filters must consistently deliver clean air under severe operating conditions. Whether the filters are used in automotive engines, heavy-duty equipment, dust collectors or vacuum cleaners, buyers demand high performance and reliability.

Henkel's solutions include:

## Automotive Air Filters

Heavy-duty air filters for construction vehicles need to withstand harsh operating environments. Many applications require high temperature and chemical resistance. Henkel offers the following solutions:

- **First pleat/last pleat bonding:** EVA and PA hot melts with a range of temperature resistance
- **End cap bonding:** Durable 2-part polyurethane and epoxy adhesives
- **Spiral wrap bonding:** PUR and PO hot melts with higher performance or cost-effective options

### Key Benefits:

1. Wide range of processing speeds
2. High temperature resistance
3. High durability
4. High bond strength



## Industrial Air – High Efficiency Filters

The stakes are high for laboratory, clean room and industrial filters. Dust contaminants can compromise an entire electronic assembly or skew the results of a laboratory study. Henkel has a full range of adhesive solutions for manufacturing HEPA and ULPA filters:

- **Pleating:** EVA hot melt adhesives with fast open and set speeds, foamable for cost savings; PA hot melts for higher temperatures
- **Frame bonding:** Two-part polyurethane adhesives with a range of viscosities, flame retardant, range of pot life/cure speeds

### Key Benefits:

1. Wide range of processing speeds
2. High bond strengths
3. High flexibility
4. High durability
5. Industry approvals: UL 900 and UL 94 V-0
6. Foaming capabilities



## Industrial Air – Commercial and Residential Filters

Air filters for commercial, residential and industrial use must consistently deliver high performance and reliability. Henkel's solutions include:

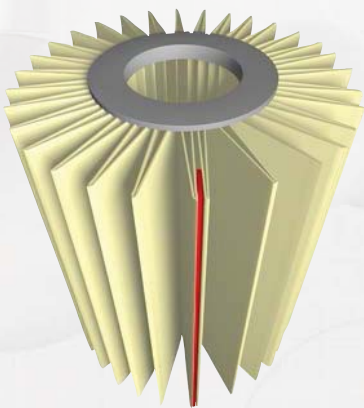
- **Panel (HVAC) filters:** Hot melt and PVA water-based adhesives for frame bonding for plastic and paper frames; two-part polyurethanes for metal and plastic frames
- **Bag filters:** Hot melt and PVA water-based adhesives for seam sealing and frame bonding with a range of temperature resistance and open times/cure speeds

### Key Benefits:

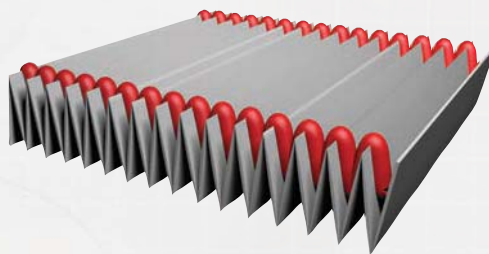
1. Wide range of processing speeds
2. High temperature resistance
3. High durability
4. High bond strengths



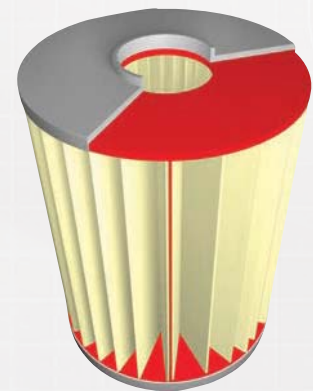
### HEAVY-DUTY AIR FILTERS



Joining First/Last Pleat

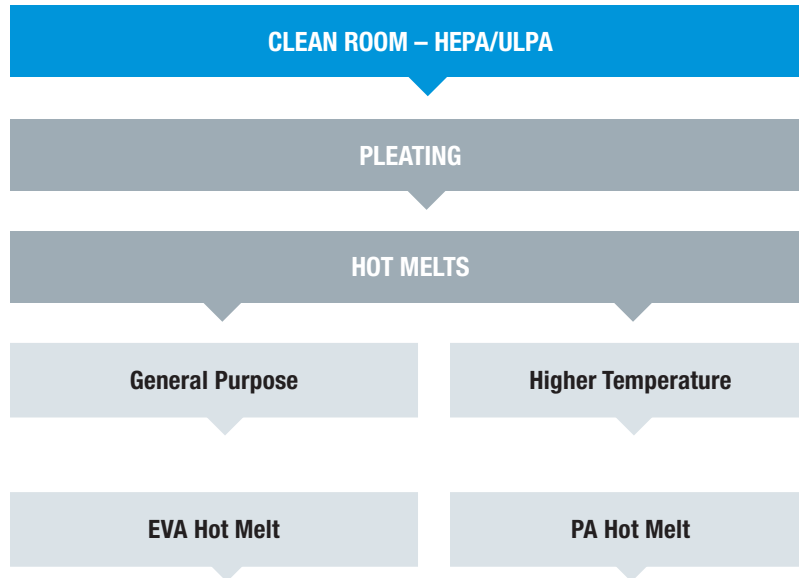


Pleating/Edge Sealing



Bonding or eliminating metal end caps

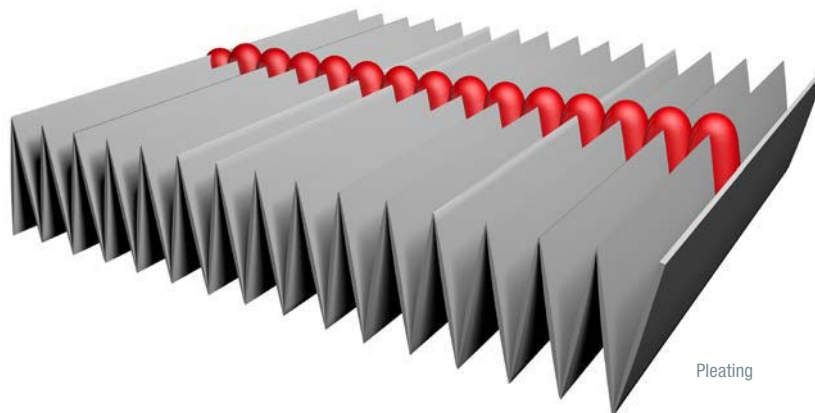
## AIR FILTRATION / HEPA/ULPA



- Cost-effective
- Foamable
- Fast open/set time
- Flame retardant
- Low outgassing

- Higher temperature resistance
- Fast open/set time

See Automotive Pleating section, page 22.



## PLEATING – EVA HOT MELTS

HOT MELT ADHESIVES – TYPICAL PROPERTIES									
PRODUCT NO.	TYPE	PLEATING SPEEDS	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY (cPs) 166°C/325°F	OPEN TIME (SEC.)	DESCRIPTION
<b>TECHNOMELT® AS 3254™</b> IDH 1762905 (Box)	EVA	High	High	Moderate	White	110/230	8,000	Short: 10-20	Fast set speeds (similar to a PA)
<b>TECHNOMELT® AS 5669™*</b> IDH 1649575 (Box)	EVA	High	Moderate	Moderate	White	100/212	8,000	Short: 10-20	Flame retardant, rapid running speeds, good adhesion to media
<b>TECHNOMELT® AS 3112™*</b> IDH 1640436 (Box)	EVA	High	Moderate	Moderate	White	95/203	3,000	Short: 10-20	Excellent for high speed pleating and can be used foamed or unfoamed
<b>TECHNOMELT® AS 870C™</b> IDH 1430067 (Box) IDH 1217872 (Sack)	EVA	High	High	Moderate	Off-white	109/228	1,475	Short: 10-15	Excellent flexibility, good heat resistance, best adhesion to fiber glass & polyester media
<b>TECHNOMELT® AS 771C™</b> IDH 1217801 (Box)	EVA	High	Moderate	Moderate	Off-white	106/223	2,400	Short-Medium: 20-25	Excellent flexibility, good heat resistance, best adhesion to fiber glass & polyester media
<b>TECHNOMELT® AS 8647™*</b> IDH 1649568 (Box) IDH 1655665 (Drum)	EVA	High	Moderate	Moderate	Off-white	108/226	4,700 at 177°C/350°F	Medium: 40-60	Flame retardant, good adhesion to media – FDA 175.105
<b>TECHNOMELT® GA 1214™</b> IDH 1217279 (Box)	EVA	Moderate	Very High	Low	Off-white	75/167	2,900	Medium: 40-60	Long open time (roll coatable), PSA alternative – FDA 175.105
<b>TECHNOMELT® AS 8370™</b> IDH 1554389 (Box) IDH 1649879 (Sack)	EVA	High	Low	Moderate	Light yellow	110/230	1,200 at 177°C/350°F	Medium-Long: 20-40	Excellent hot tack for low compression applications – FDA 175.105
<b>TECHNOMELT® AS 3113™</b> IDH: Consult Henkel	EVA	High	Moderate	Moderate	White	104/221	7,000-9,000	Short: 12-15	Good heat resistance, less shrinkage, foamable
<b>TECHNOMELT® AS 3115™</b> IDH: Consult Henkel	EVA	High	High	Moderate	White	110/230	6,000	Short: 5-10	High flexibility for pleating air filters
<b>TECHNOMELT® AS-5980NF™</b> IDH: Consult Henkel	EVA	High	High	Moderate	White	110/230	5,000	Short: 5-10	Air filter & gas turbine pleating, no filler, less shrinkage – FDA 175.105

\* UL Class II Fire Retardant.

## AIR FILTERS – PRODUCT SELECTION GUIDE

## AIR FILTRATION / HEPA/ULPA

## CLEAN ROOM – HEPA/ULPA

## FRAME BONDING

## Two Part PU

- Range of viscosity; high flow to thixotropic
- Flame retardant
- Low outgassing/purity
- Range of pot life/cure speed
- Range of filler content
- Chemical and temperature resistance
- Color (white available)



Frame Bonding/Sealing

## FRAME BONDING &amp; FACE WELDING – PU

## TWO-PART POLYURETHANE SYSTEMS – TYPICAL PROPERTIES

PRODUCT NO.	POLYOL/ ISO	VOL. MIX RATIO (A:B)	MASS MIX RATIO (A:B)	MIXED COLOR	MIXED VISCOSITY (cPs)	SHORE HARDNESS	GEL TIME (100 G AT 77°F/25°C)	VISCOSITY (cPs)	DENSITY (G/CC)	COLOR	DESCRIPTION
<b>LOCTITE® UK 072™ A AND LOCTITE® UK 072™ B COMBINED</b>											
<b>LOCTITE® UK 072™ A</b> IDH 1219038 (Drum)	Polyol	3.2:1	3.5:1	Off-white	23,500	90 (A)	2.5 min.	30,000	1.35	White	Controlled penetration, low temp. flexibility, excellent adhesion to metal, plastic, wood, media, etc.
<b>LOCTITE® UK 072™ B</b> IDH 1219040 (Drum)	Iso							200	1.23	Amber	
<b>LOCTITE® UK 201™ A AND LOCTITE® UK 180™ B COMBINED</b>											
<b>LOCTITE® UK 201™ A</b> IDH 1219075 (Drum)	Polyol	2:1	1.65:1	Blue	1,200	60 (A)	1.5 min.	1,300	0.97	Blue	Fast de-molding, low wicking and minimal bubbling w/ potting high moisture containing filter media.
<b>LOCTITE® UK 180™ B</b> IDH 1219067 (Drum)	Iso							1,100	1.16	Amber	
<b>LOCTITE® PE US5502™ A AND LOCTITE® Stycast® US 5501™ B COMBINED</b>											
<b>LOCTITE® PE US5502™ A</b> IDH 876402 (Tote)	Polyol	3.53:1	3.94:1	Off-white	2,600	90 (A)	6 min.	3,320	1.34	White	Low VOC, flame retardant, thixotropic (1.0), approvable UL 94V-1/UL 900 meets intell and ASME AG-1B Nuclear spec.
<b>LOCTITE® Stycast® US 5501™ B</b> IDH 1708482 (Tote)	Iso							200	1.23	Amber	
<b>LOCTITE® H2U™</b> IDH 1265272 (Drum)	W PU	NA	NA	NA	NA	90 (A)	Thixo (immediate Green Strength)	1.7 MM	1.27	White to clear	Single part, thixo, passes UL 900.
<b>LOCTITE® UK 8180N™ AND LOCTITE® UK 5400™ COMBINED</b>											
<b>LOCTITE® UK 8180N™</b> IDH: Consult Henkel	Polyol	2:1	5:3	Beige	Very low viscous - chemical thixotropic within seconds	80 (D)	Potlife (73°F/23°C, 120g) 4-6 min.	850	1.03	Beige	Chemical thixotropic product which starts very low viscous and becomes thixotropic and sag resistant within seconds.
<b>LOCTITE® UK 5400™</b> IDH: Consult Henkel	Iso							300	1.23	Brown	



## AIR FILTRATION / HEPA/ULPA

- **Cure-in-Place Gasket** - Eliminates cut gasket to provide solution in one step and cost savings
- **Gasket Bonding** - Provides high speed bonding of cut gaskets



Gasketing



Gasket Bonding

### CURE-IN-PLACE GASKETING – SILICONE

VARIOUS ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NO.	TYPE	SET SPEED	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	VISCOSITY (cPs)	SKIN OVER TIME (MIN.)	DESCRIPTION
<b>LOCTITE® SI 593™ Black</b> IDH 193997 (Cartridge) IDH 234602 (Pail)	Silicone	Long	High	Very high (400°F/204°C)	Black	Paste (100g/min. extrusion)	30	Cure-in-place gasket, temps. up to 400°F/204°C.
<b>LOCTITE® SI 5900® Black</b> IDH 212184 (Cartridge) IDH 230153 (Pail) IDH 230154 (Drum)	Silicone	Long	High	Very high (400°F/204°C)	Black	Paste (35g/min. extrusion rate)	5	Very thick, cure-in-place gasket, temps. up to 400°F/204°C.
<b>LOCTITE® SI 587™ Blue</b> IDH 234590 (Cartridge) IDH 234592 (Pail) IDH 256967 (Drum)	Silicone	Long	High	Very high (400°F/204°C)	Blue	Paste (300g/min. extrusion rate)	50	Oil resistant, cure-in-place gasket, temps. up to 400°F/204°C.

### CURE-IN-PLACE GASKETING – PSA

VARIOUS ADHESIVES – TYPICAL PROPERTIES									
PRODUCT NO.	TYPE	SET SPEED	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY (cPs) AT 350°F/177°C	OPEN TIME (SEC.)	DESCRIPTION
<b>TECHNOMELT® AS 8848™</b> IDH 1629993 (Box) IDH 1059364 (Drum)	PSA	Moderate	High	Moderate	Translucent white	93/200	250	Medium: 40-60	Foam-in-place gasket (up to 60%), temps. up to 175°F/79°C

### GASKET BONDING – INSTANT ADHESIVE

VARIOUS ADHESIVES – TYPICAL PROPERTIES							
PRODUCT NO.	TYPE	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	VISCOSITY (cPs)	FIXTURE TIME (SEC.)	DESCRIPTION
<b>LOCTITE® 495™</b> IDH 135467 (1oz) IDH 209591 (1lb)	CA	Low	Moderate (250°F/121°C)	Clear	45	20	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F/121°C temp. resistance, excellent chemical resistance.
<b>LOCTITE® 435™</b> IDH 840057 (20g) IDH 840071 (1lb)	CA	Low	Moderate (250°F/121°C)	Clear	175	30-45	Toughened adhesive for higher durability and for metal and rubber bonding, excellent chemical resistance.
<b>LOCTITE® 401™</b> IDH 135429 (20g) IDH 135430 (1lb)	CA	Low	Moderate (250°F/121°C)	Clear	110	15	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F/121°C temp. resistance, excellent oil resistance.
<b>LOCTITE® 454™</b> IDH 135462 (20g)	CA	Low	Moderate (250°F/121°C)	Clear	Gel	30-60	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F/121°C temp. resistance, excellent oil resistance.
<b>LOCTITE® 4902™</b> IDH 1875841 (20g) IDH 1875842 (1lb)	CA	High	Moderate (250°F/121°C)	Clear	200	10-30	Highly flexible CA for applications that require high impact or bonding flexible substrates.
<b>LOCTITE® HY 4090™</b> IDH 2123350 (50 ml Cartridge)	CA	Low	Moderate (250°F/121°C)	Clear	10,000	<3min.	Two part highest structural bonding and larger gaps for bonding rubber or foam gaskets to metal or plastic end caps, 250°F/121°C temp. resistance, excellent oil resistance.

## AIR FILTERS – PRODUCT SELECTION GUIDE

## AIR FILTRATION / HVAC

## PANEL FILTERS (HVAC) – FRAME BONDING

## PLASTIC

## PAPER

## ABS/PS Frame

## PP Frame

## Faster Processing

## Cost-Effective

## EVA Hot Melt

## PO Hot Melt

## EVA Hot Melt

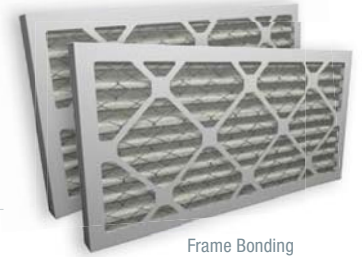
## PVA WB

- Cost-effective
- Range of viscosities
- Range of open/set times for ease of assembly

- Highest adhesion to difficult-to-bond substrates
- Range of viscosities
- Medium to long open times for ease of assembly

- Range of viscosities
- Fastest set speeds

- Range of viscosities
- Water resistance
- Good wet tack
- Range of open/set speed



## FRAME ASSEMBLY – PO HOT MELT

## VARIOUS ADHESIVES – TYPICAL PROPERTIES

PRODUCT NO.	TYPE	SET SPEED	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY (cPs) AT 350°F/177 °C	OPEN TIME (SEC.)	DESCRIPTION
<b>TECHNOMELT® AS 3210™</b> IDH 1700025 (Box)	PO	Moderate	Moderate	Moderate	Off-white	135/275	10,000	Medium-long: 60-80	Excellent heat resistance, bonds to hard to bond substrates – class I smoke approvable.
<b>TECHNOMELT® PS 8843™</b> IDH 1407069 (Box) IDH 884120 (Drum)	PO	Long	Moderate	Moderate	Amber	143/289	5,500	Medium-long: 60-80	Excellent adhesion to difficult to bond substrates, wide service temp. range – FDA 175.105
<b>TECHNOMELT® AS 4222™</b> IDH 266079 (Bag)	PO	Short	Moderate	High	Amber	160/320	8,100	Short: 10-20	High creep resistance, excellent adhesion to difficult to bond substrates – FDA 175.105
<b>TECHNOMELT® AS 4206™</b> IDH 554668 (Box)	PO	Moderate	Moderate	Moderate	Amber	118/244	10,000	Medium: 40-60	Excellent adhesion to difficult to bond substrates, wide service temp. range
<b>TECHNOMELT® AS 8890™</b> IDH 1348378 (Drum)	PO	Moderate	Moderate	High	White	155/311	5,500	Medium: 40-60	Excellent adhesion and durability on metal and plastic parts
<b>TECHNOMELT® 5303™</b> IDH 73809 (Bag 20kg)	PO	Moderate	Moderate	High	Translucent	125/261	2,900 at 396°F (190°C)	Medium: 50-60	Long open time – translucent-flexible with high SP for stabilization & spiral wrapping.
<b>TECHNOMELT® AS 871B™</b> IDH 1217873 (Box)	PO	High	High	Moderate	Off-white	152/305	3,800	Short: 10-15	High strength adhesive to multiple substrates – FDA 175.105
<b>TECHNOMELT® AS 4216™</b> IDH 1730862 (Box)	PO	High	Moderate	Moderate	White	155/311	30,000	Medium: 40-60	Optimized viscosity for pleat stabilization, fast set speeds for high process speeds
<b>TECHNOMELT® 6009S™</b> IDH 475559 (Box)	PO	High	Moderate	Moderate	White	110/230	8,000	Short: 10-20	Fast set speeds (similar to a PA)

## FRAME ASSEMBLY – EVA HOT MELT

HOT MELT ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NUMBER	TYPE	ASSEMBLY TIME	TEMPERATURE RESISTANCE	OPEN TIME (SEC.)	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY PROFILE (cPs) 166°C/325°F	DESCRIPTION
<b>TECHNOMELT® 2635™</b> IDH 1222925 (Box)	EVA	Fast	High	Short: 10-20	Light yellow	108/226	1,700	General purpose – FDA 175.205
<b>TECHNOMELT® SUPRA 150™</b> IDH 1724951 (Box)	EVA	Fast	High	Short: 10-20	White	104/220	1,300 at 177°C/350°F	Excellent heat resistance, non-charring and low odor – FDA 175.105
<b>TECHNOMELT® SUPRA 772C™</b> IDH 1217803 (Box)	EVA	Fast	High	Medium: 40-60	Light amber	111/232	1,960 at 149°C/300°F	Excellent adhesion to difficult to bond substrates, excellent high & low temp resistance, low odor – FDA 175.105
<b>TECHNOMELT® SUPRA 796C™</b> IDH 1217817 (Tote)	EVA	Fast	Moderate	Short: 10-20	Light yellow	92/198	4,400	Excellent adhesion to media and polyethylene, low bleed through, FDA 175.105
<b>TECHNOMELT® 2631™</b> IDH 1217410 (Box)	EVA	Moderate	High	Medium: 40-60	Medium yellow	108/226	1,750	General purpose – FDA 175.205
<b>TECHNOMELT® EM 8572™</b> IDH 1342349 (Box)	EVA	Moderate	Low	Medium-Long: 60-80	Light amber	74/165	3,900	PSA, high peel strength, very aggressive tack.
<b>TECHNOMELT® AS 269C™</b> IDH 1280350 (Bag)	EVA	Moderate	Low	Short-Medium: 20-40	Yellow	80/176	800 at 177°C/350°F	Excellent adhesion to difficult to bond substrates, excellent cold temp. resistance – FDA 175.105

## PRE-APPLIED HEAT REACTIVATED – HOT MELT

HOT MELT ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NUMBER	TYPE	ASSEMBLY TIME	TEMPERATURE RESISTANCE	OPEN TIME (SEC.)	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY PROFILE (cPs) 166°C/325°F	DESCRIPTION
<b>TECHNOMELT® COOL 889A™</b> IDH 1217888 (Box)	EVA	Fast	Moderate	Short: 10-20	Light yellow	76/169	1,200	Thermal stability to reduce char, low energy costs, excellent adhesion to difficult to bond substrates – FDA 175.105

## FRAME ASSEMBLY - WATER BASED (WB)

WATER-BASED ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NUMBER	OPEN TIME (SEC.)	SET SPEED (SEC.)	TACK	VISCOSITY (cPs)	SOLIDS (%)	PH	DENSITY (LBS/GAL)	DESCRIPTION
<b>AQUEUNE® 034-008-223 (7348H)™</b> IDH 512143 (Drum) IDH 556205 (Tote)	Long 300+	Moderate 250+	Low	6,000	50	8.5	8.8	Bonds difficult to bond substrates, excellent water resistance – FDA 175.105
<b>AQUEUNE® 51-3130™</b> IDH 513104 (Pail)	Medium: 120-300	Fast 90-250	Moderate	2,000	57	5.0	9.0	Well balanced performance, good water resistance – FDA 175.105
<b>AQUEUNE® LA 5112™</b> IDH 513787 (Pail) IDH 513786 (Drum) IDH 513783 (Tote)	Medium: 120-300	Fast 90-250	High	1,800	55	4.5	9.0	General purpose, excellent wet tack & fast set up, good water resistance – FDA 175.105
<b>AQUEUNE® LA 7748™</b> IDH 1647332 (Drum) IDH 1647331 (Tank)	Short 90-120	Fast 90-250	High	1,700	61	3.5	9.1	High quality, very fast setting, excellent water resistance, re-tack capable – FDA 175.105
<b>AQUEUNE® AV 797™</b> IDH 1059677 (Pail) IDH 751092 (Drum)	Medium: 120-300	Moderate 250+	High	4,000	56	5.0	8.8	Bonds difficult to bond substrates, excellent water resistance – FDA 175.105
<b>AQUEUNE® PL 395HC™</b> IDH 854328 (Pail)	Medium: 120-300	Moderate 250+	High	5,000	38	7.1	8.7	High performance cross linking PU, heat reactivatable.
<b>AQUEUNE® AV 5343™</b> IDH 553346 (Pail) IDH 608442 (Drum)	Medium: 120-300	Moderate 250+	Moderate	10,000	61	5.0	9.1	Well balanced performance, good water resistance – FDA 175.105
<b>AQUEUNE® LA 724A UTCL™</b> IDH1222666 (Pail) IDH 1216492 (Drum) IDH 1216493 (Tote)	Short 90-120	Fast 90-250	Moderate	2,000	48	3.5	9.0	Very fast setting, good water resistance, re-tack capable – FDA 175.105
<b>AQUEUNE® CG 9012™</b> IDH1222859 (Pail) IDH 1222861 (Drum) IDH 1222865 (Tote)	Short 90-120	Fast 90-250	High	1,500	57	4.5	9.1	High wet tack, good water resistance, re-tack capable – FDA 175.105

## AIR FILTERS – PRODUCT SELECTION GUIDE

## AIR FILTRATION / HVAC

## HVAC

## PLEATING AND STABILIZATION

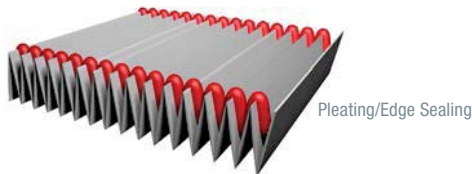
## WIRE MESH

## EVA Hot Melt

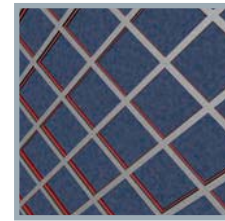
## PSA Hot Melt

- Cost-effective
- Range of viscosities
- Range of open/set times for ease of assembly

- Good adhesion to metal
- High instant tack
- Fast set speeds
- Roll coatable
- Cost effective



Pleating/Edge Sealing



Wire Mesh

## PLEAT SEPARATOR – EVA HOT MELT

## HOT MELT ADHESIVES – TYPICAL PROPERTIES

PRODUCT NUMBER	TYPE	ASSEMBLY TIME	TEMPERATURE RESISTANCE	OPEN TIME (SEC.)	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY PROFILE (cPs)	DESCRIPTION
<b>TECHNOMELT® AS 8647™*</b> IDH 1649568 (Box) IDH 1655665 (Drum)	EVA	Moderate	High	Medium: 40-60	Off-white	108/226	4,700 at 177°C/350°F	Flame retardant, good adhesion to media – FDA 175.105
<b>TECHNOMELT® 8370™</b> IDH 1554389 (Box) IDH 164989 (Sack)	EVA	Fast	High	Short: 10-20	Light yellow	110/230	1,000 at 177°C/350°F	Excellent hot tack for low compression applications – FDA 175.105
<b>TECHNOMELT® 8448™</b> IDH 1329423 (Bag) IDH 1329233 (Tote)	EVA	Fast	High	Medium: 40-60	Tan	110/230	1,100 at 177°C/350°F	Excellent hot tack, excellent thermal stability extending pot life – FDA 175.105
<b>TECHNOMELT® 7883™</b> IDH 1353256 (Bag)	EVA	Fast	High	Short: 10-20	Light yellow	110/230	800 at 177°C/350°F	Very aggressive hot tack, low viscosity – FDA
<b>TECHNOMELT® AS 4216™</b> IDH 1730862 (Box)	PO	Moderate	Moderate	Medium: 40-60	White	155/311	30,000 at 177°C/350°F	Optimized viscosity for pleat stabilization, fast set speeds for high process speeds.

\* UL Class II Fire Retardant.

## WIRE MESH / SCRIM ATTACHMENT – PSA HOT MELT

## HOT MELT ADHESIVES – TYPICAL PROPERTIES

PRODUCT NUMBER	TYPE	ASSEMBLY TIME	TEMPERATURE RESISTANCE	OPEN TIME (SEC.)	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY PROFILE (cPs)	DESCRIPTION
<b>TECHNOMELT® 2787™</b> IDH 1989546 (Box) IDH 2140353 (Tote)	PSA	Moderate	Moderate	Medium: 40-60	Yellow	90/194	4,800 166°C/325°F	Bonds PET, metal & media – FDA 175.105
<b>TECHNOMELT® EM 4955™</b> IDH 1755203 (Box)	PSA	Moderate	Moderate	Medium: 40-60	Medium amber	72/162	1,500	Good adhesion to glass, metal, PET & media – FDA 175.105

## BAG FILTERS

### SEAM SEALING

### FRAME BONDING

#### General Purpose

#### Higher Temperature

#### PVA WB

#### EVA Hot Melt

#### PA Hot Melt

- Temperature <100°C
- Fast set
- Flame retardant
- Range of open time/ cure speed

- Temperature >100°C
- Higher adhesion to difficult-to-bond media

See Automotive First/Last Pleat Bonding PA Hot Melts page 23.

- Most cost-effective
- Range of open time/cure speed

See HVAC Frame Bonding, page 19.

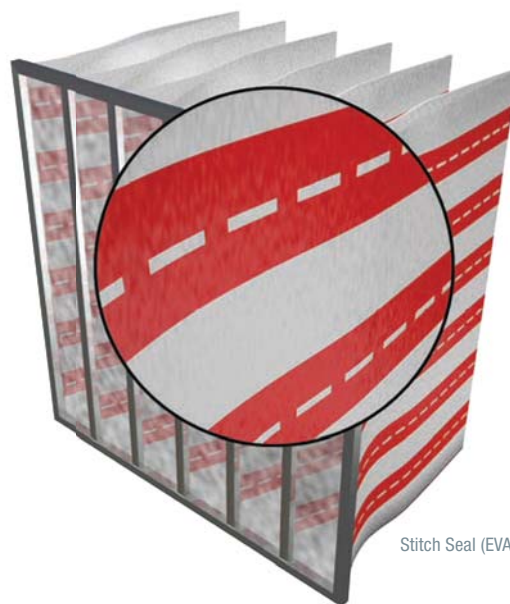


Bag Filters

## STITCH SEAL/PLEAT SEPARATOR – EVA HOT MELT

### HOT MELT ADHESIVES – TYPICAL PROPERTIES

PRODUCT NUMBER	TYPE	ASSEMBLY TIME	TEMPERATURE RESISTANCE	OPEN TIME (SEC.)	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY PROFILE (cPs)	DESCRIPTION
<b>TECHNOMELT® AS 8361™</b> IDH 1649879 (Box)	EVA	Fast	High	Short: 10-20	Translucent white	96/205	1,350 at 177°C/350°F	Heat Reactivated – FDA 175.105



Stitch Seal (EVA's)

## AIR FILTERS – PRODUCT SELECTION GUIDE

## AIR FILTRATION / AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

## AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

## PLEATING, STABILIZATION AND EDGE SEALING

## General Purpose

## Flexibility (Cylindrical)

## Highest Temperature

## EVA Hot Melt

- Cost-effective
- Good temperature and chemical resistance
- Fast set speeds

See HEPA/ULPA Pleating section, page 15.

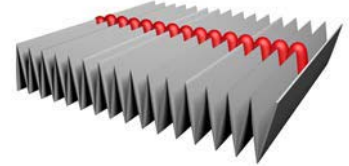
## PO Hot Melt

- High durability
- Cost-effective
- Foamable

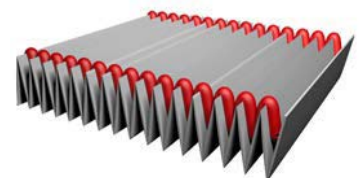
See HVAC section, page 18.

## PA Hot Melt

- Best temperature and chemical resistance
- Fast set speeds



Pleating/Stabilization



Edge Sealing

## PLEATING/STABILIZATION AND EDGE SEALING – PA HOT MELT

HOT MELT ADHESIVES – TYPICAL PROPERTIES									
PRODUCT NUMBER	TYPE	PLEATING SPEEDS	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY (cPs)	OPEN TIME (SEC.)	DESCRIPTION
<b>TECHNOMELT® PA 6300™</b> IDH 1398258 (Bag)	PA	High	Moderate	Very High	Translucent Amber	190/374	3,700 cPs at 240°C/464°F	Short: 10-20	High temp. resistance, with excellent creep resistance. Good chemical resistance – FDA 175.105
<b>TECHNOMELT® PA 2192B™</b> IDH 1396374 (Bag) IDH 1396799 (Sack)	PA	High	Moderate	High	Dark Amber	167/333	4,200 cPs at 210°C/410°F	Short-Medium: 20-40	Good chemical resistance & moisture resistance with excellent high temp. creep resistance – FDA 175.105
<b>TECHNOMELT® PA 2035™</b> IDH: Consult Henkel	PA	High	Moderate	High	Amber	200/398	4,750 at 232°C/450°F	Short: 10-20	High temp. resistance, with excellent creep resistance & moisture resistance with excellent chemical resistance.
<b>TECHNOMELT® PA 6240™</b> IDH 1397818 (Bag)	PA	Moderate	Moderate	High	Light Amber	142/287	7,000 cPs at 225°C/437°F	Medium: 40-60	Superior adhesion to polar plastics like ABS & PVC; UL 94 V-2 flame rating.
<b>TECHNOMELT® PA 2692™</b> IDH 1415054 (Bag)	PA	High	Moderate	Very High	Translucent Amber	206/403	4,200 cPs at 240°C/464°F	Short-Medium: 20-40	High temp. resistance, with excellent creep resistance. Good chemical resistance – FDA 175.105
<b>TECHNOMELT® PA 6202™</b> IDH 1398265 (Bag)	PA	Moderate	Moderate	Moderate	Light Amber	133/271	5,000 cPs at 190°C/375°F	Medium: 40-60	Good adhesion to plastics, metals and to media – FDA 175.105
<b>TECHNOMELT® PA 2157™</b> IDH 1398263 (Bag)	PA	Moderate	Moderate	High	Clear Amber	165/329	750 cPs at 190°C/375°F	Medium-Long: 60-80	Excellent heat resistance, good adhesion to metals, elastomers and polyesters – FDA 175.105, 94 V-0
<b>TECHNOMELT® PA 6238™</b> IDH 1861214 (Bag)	PA	Moderate	Moderate	High	Clear Amber	133/271	5,000 cPs at 210°C/410°F	Medium: 40-60	Good adhesion to rigid and flexible plastics to metal and media – FDA 175.105
<b>TECHNOMELT® PA 6239™</b> IDH 38358 (Bag)	PA	Moderate	Moderate	High	Light Amber	133/271	7,000 cPs at 225°C/437°F	Medium: 40-60	Good high and low temp. resistance (creep), good adhesion to plastic, metal & media – FDA 175.105

## AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

### FIRST/LAST PLEAT BONDING

Temperature <100°C

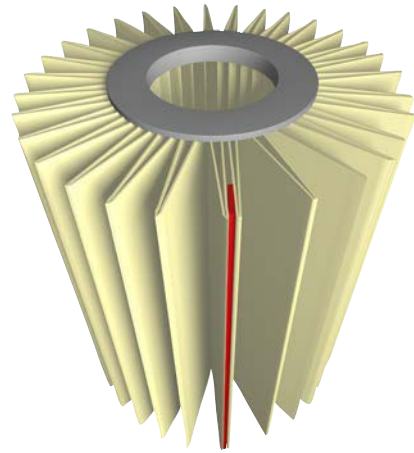
Temperature >100°C

EVA Hot Melt

PA Hot Melt

- Cost-effective
  - Good temperature and chemical resistance
  - Fast set speeds
- Best temperature and chemical resistance
  - Fast set speeds

See HEPA/ULPA Pleating section for an EVA option, page 15.



First/Last Pleat Bonding

### FIRST PLEAT/LAST PLEAT – PA HOT MELT

#### HOT MELT ADHESIVES – TYPICAL PROPERTIES

PRODUCT NUMBER	TYPE	PLEATING SPEEDS	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	SOFTENING POINT (°C)/(°F)	VISCOSITY (cPs)	OPEN TIME (SEC.)	DESCRIPTION
<b>TECHNOMELT® PA 2333B™</b> IDH 1396375 (Bag)	PA	Moderate	Moderate	High	Light Amber	140/284	3,000 cPs at 190°C/375°F	Short: 10-20	Good low temp. flexibility, good bond strength to plastic, metal, and media – FDA 175.105
<b>TECHNOMELT® PA 9069™</b> IDH 1392850 (Bag)	PA	High	Moderate	Very High	Amber	185/365	3,700 cPs at 210°C/410°F	Short: 10-20	Good chemical resistance and adhesion to plastic, metals and media – FDA 175.105
<b>TECHNOMELT® PA-2030™</b> IDH: Consult Henkel	PA	High	Moderate	High	Amber	160/320	6500 mPas at 200°C/392°F	Short: 20-30	Low fogging according to DIN 75201 B



AIR FILTERS – PRODUCT SELECTION GUIDE

AIR FILTRATION / AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

END CAP BONDING

Higher Temperatures

Temperature Resistance

One-Part PA

- Higher temperature resistance
- Fast open/set time

Two Part PU

- Good temperature and chemical resistance
- Range of cure speeds
- Cost-effective
- High adhesion to metal and plastic

See Mechanical Fluid End Cap Bonding section, page 30.

Two Part Epoxy

- Best temperature and chemical resistance
- Range of cure speeds
- Highest adhesion to metal and plastic

See Mechanical Fluid End Cap Bonding section, page 30.



End Cap Bonding

END CAP BONDING – PA HOT MELTS

PRODUCT NUMBER	COLOR	VISCOSITY @ 240°C/464°F	OPEN TIME (SEC.)	TEMPERATURE RESISTANCE	SOFTENING POINT (°C)/ (°F)	CHEMICAL RESISTANCE			DESCRIPTION
						OIL	TRANS FLUID	GAS, DIESEL	
<b>TECHNOMELT® PA 2692™</b> IDH 1415054 (Bag)	Translucent Light Amber	4,200	Short (10-20)	Very High	206/403	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance. Good chemical resistance - FDA 175.105 approved.
<b>TECHNOMELT® PA 6300™</b> IDH 1398258 (Bag)	Translucent Light Amber	3,700	Short (10-20)	Very High	190/374	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance. Good chemical resistance - FDA 175.105 approved.
<b>TECHNOMELT® PA 2192B™</b> IDH 1396374 (Bag) IDH 1396799 (Sack)	Dark Amber	4,200 at 210°C/410°F	Short-Medium: (20-25)	High	167/333	✓	Contact Henkel	✓	High temp. resistance, with excellent creep resistance & moisture resistance with excellent chemical resistance - FDA 175.105 approved.
<b>TECHNOMELT® PA 9069™</b> IDH 1392850 (Bag)	Amber	3,700 at 210°C/410°F	Short (10-20)	Very High	185/365	✓	Contact Henkel	✓	Good chemical resistance and adhesion to plastic, metals and media - FDA 175.105
<b>TECHNOMELT® PA 2035™</b> IDH: Consult Henkel	Amber	4,750 at 232°C/450°F	Short: 10-20	Very High	200/398	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance & moisture resistance with excellent chemical resistance.



## AUTOMOTIVE AND HEAVY DUTY AIR FILTERS

### SPIRAL BEAD

#### High Performance

#### General Purpose

#### PUR

#### PO Hot Melt

- Highest strength and durability
- Highest temperature resistance
- Less adhesive required to reach performance requirements

- High durability
- Cost-effective
- Foamable



Spiral Bead

### SPIRAL BEAD – PO AND PUR HOT MELTS

PRODUCT NUMBER	TYPE	VISCOSITY	OPEN TIME (SEC.)	TEMPERATURE RESISTANCE	SOFTENING POINT (°C)/ (°F)	CHEMICAL RESISTANCE			DESCRIPTION
						OIL	TRANS FLUID	GAS, DIESEL	
<b>TECHNOMELT® PUR™ 9016™</b> IDH 1223000 (Pail)	PUR	7,500 at 121°C/250°F	Short (10-20)	Very High	NA	✓	✓	✓	Extrusion, spray or roll coatable, 250°F temp. resistance, very fast setting, high deflection resistance.
<b>TECHNOMELT® PUR™ 246CLV™</b> IDH 1100203 (Pail) IDH 970446 (Drum)	PUR	18,000 at 82°C/180°F	Medium: (40-60)	Very High	NA	✓	✓	✓	Excellent adhesion to difficult to bond substrates with low dispense temperatures.
<b>TECHNOMELT® 5303™</b> IDH 73809 (Bag 20kg)	PO	2,900 at 190°C/396°F	Medium: (50-60)	High	125/261	✓	Contact Henkel	Contact Henkel	Long open time-translucent-flexible with high SP for stabilization & spiral wrapping.

## GASKET BONDING

### VARIOUS ADHESIVES – TYPICAL PROPERTIES

PRODUCT NUMBER	TYPE	FLEXIBILITY	TEMPERATURE RESISTANCE	COLOR	VISCOSITY (cPs)	FIXTURE TIME (SEC.)	DESCRIPTION
<b>LOCTITE® 495™</b> IDH 135467 (1oz) IDH 209591 (1lb)	CA	Low	Moderate (121°C/250°F)	Clear	45	20	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F temp. resistance, excellent chemical resistance.
<b>LOCTITE® 435™</b> IDH 840057 (20g) IDH 840071 (1lb)	CA	Low	Moderate (121°C/250°F)	Clear	175	30-45	Toughened adhesive for higher durability and for metal and rubber bonding, excellent chemical resistance
<b>LOCTITE® 401™</b> IDH 135429 (20g) IDH 135430 (1lb)	CA	Low	Moderate (121°C/250°F)	Clear	110	15	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F temp. resistance, excellent oil resistance.
<b>LOCTITE® 454™</b> IDH 135462 (20g)	CA	Low	Moderate (121°C/250°F)	Clear	Gel	30-60	Bonding rubber or foam gaskets to metal or plastic end caps, 250°F temp. resistance, excellent oil resistance.
<b>LOCTITE® 4902™</b> IDH 1875841 (20g) IDH 1875842 (1lb)	CA	High	Moderate (121°C/250°F)	Clear	200	10-30	Highly flexible CA for applications that require high impact or bonding flexible substrates
<b>LOCTITE® HY 4090™</b> IDH 2123350 (50 ml cartridge)	CA	Low	Moderate (121°C/250°F)	Clear	10,000	<3min	Two part highest structural bonding and larger gaps for bonding rubber or foam gaskets to metal or plastic end caps, 250°F temp. resistance, excellent oil resistance.

# SOLUTIONS FOR FLUID FILTERS

Mechanical fluid filters must withstand exposure to the most intense operating conditions. Despite continuous exposure to hot oils or solvents, these filters must remove particulates to keep engines and equipment running effectively.

Henkel's solutions include:

## Mechanical Fluid Filters

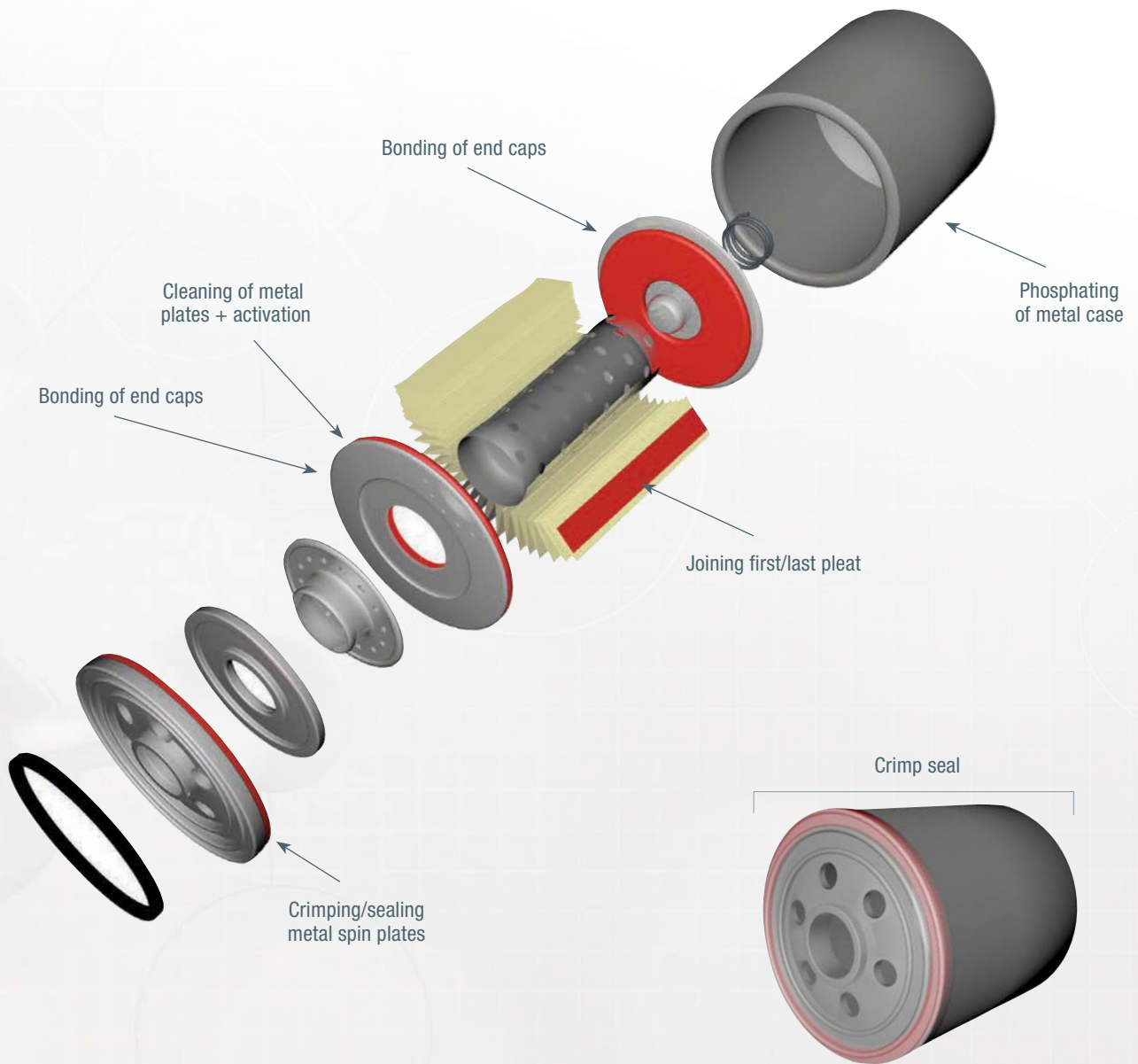
- **First pleat/last pleat bonding:** Hot melts with fast set times; epoxies with higher temperature and chemical resistance
- **Pleating/edge sealing:** Hot melts with good temperature and chemical resistance
- **End cap bonding:** Wide range of one- and two-part epoxies, hot melts, and polyurethanes with a range of temperature and chemical resistance
- **End cap replacement:** Hot melts and two-part polyurethanes with a range of viscosities and chemical resistance
- **End cap demolding:** Mold release agents with a range of finishes
- **Crimp sealing:** Anaerobic adhesives with a range of gap filling and fixture speeds

## Key Benefits:

1. High temperature resistance
2. Chemical compatibility
3. High bond strength
4. Media compatibility



### OIL FILTER STRUCTURE



FLUID FILTERS – PRODUCT SELECTION GUIDE

MECHANICAL FLUIDS



End Cap Replacement



End Cap Bonding

END CAP BONDING

ONE-PART SOLUTIONS

TWO-PART SOLUTIONS

PA Hot Melts

One-Part Heat Cured Epoxies

PUR

Two-Part Epoxies

Two-Part PU

- Cost-effective
- Versatile
- Fast to moderate open time
- Good temperature resistance

- Best chemical resistance
- Best temperature resistance
- Thermal shock resistance

- High adhesion and durability
- Better chemical resistance
- Better temperature resistance

- Best chemical resistance
- Better temperature resistance

- Better chemical resistance
- Good temperature resistance
- Highest adhesion

END CAP REPLACEMENT

END CAP DE-MOLDING

PA Hot Melts

Two-Part PU

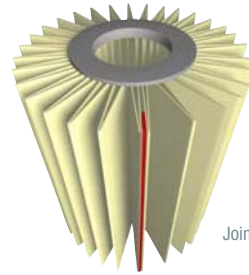
LOCTITE® FREKOTE® Mold Release

- Good temperature resistance
- Cost effective
- Lighter colors or black
- Longer open times
- Viscosity range

- Better chemical & temperature resistance\*
- Flame retardant+
- Viscosity range

- Sacrificial
- Range of finishes
- High clarity of mold features (i.e., lettering)

\*Oil, Diesel Fuel, Hydraulic Fluid, Transmission Fluid, Anti-Freeze Compatible  
 +Flame Retardant UL900 or 94V-0



Joining First/Last Pleat

## FIRST/LAST PLEAT

### HOT MELTS

#### Considerations for PA hot melts:

- Cost-effective
- Set time – fast to moderate
- Good temperature resistance
- Good chemical resistance

### HIGHER CHEMICAL OR TEMPERATURE RESISTANCE

#### Two-Part Epoxies

#### One-Part Heat Cure Epoxies

#### Considerations for epoxies:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Better temperature resistance</li> <li>• Better chemical resistance</li> <li>• Range of pot life vs. cure speed</li> </ul> | <ul style="list-style-type: none"> <li>• Best temperature resistance</li> <li>• Best chemical resistance</li> </ul> |
|---|---|

## HOT MELTS FOR PLEATING OR EDGE SEALING

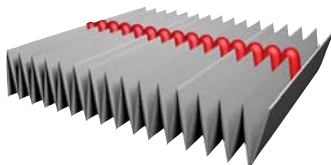
### PA Hot Melts

- Set time – fast to moderate
- Better temperature resistance
- Better chemical resistance

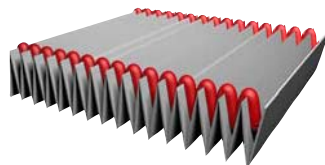
## CRIMP SEAL

### Anaerobic Adhesives

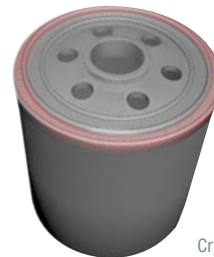
- Range of gap fill: from 0.015 to 0.050 inches (.375 to 1.25 mm)
- Range of fixture speed



Pleating



Pleating/Edge Sealing



Crimp Seal

## FLUID FILTERS – PRODUCT SELECTION GUIDE

## MECHANICAL FLUIDS

## END CAP BONDING &amp; FIRST PLEAT/LAST PLEAT – TWO PART EPOXIES

EPOXY ADHESIVES – TYPICAL PROPERTIES											
PRODUCT NUMBER	COLOR	MIXED VISCOSITY (cPs)	WORK LIFE AT 25°C/77°F (MIN.)	SERVICE TEMPERATURE (°C/°F)		CHEMICAL RESISTANCE					DESCRIPTION
				MIN.	MAX.	OIL	TRANS FLUID	GAS, DIESEL	SOLVENTS	ACIDS BASES	
<b>LOCTITE® EA E-40EXP™</b> IDH 1511653 (200ml Cartridge) IDH 1511896/1511897 (Pails)	Black	25,000	35	-40 °C/°F	177/351	✓	✓	✓	✓	✓	Medium setting, excellent chemical resistance, meets UL 674 and UL 1203.
<b>LOCTITE® EA E-40HT™</b> IDH 1086081 (400ml Cartridge)	Cream	Paste	45	-40 °C/°F	204/400	✓	✓	✓	✓	Contact Henkel	Medium setting, high temp. resistant, good metal adhesion
<b>LOCTITE® EA E-30CL™</b> IDH 237118 (400ml Cartridge)	Clear	6,000	30	-40 °C/°F	177/351	✓	✓	✓	✓	Contact Henkel	Medium setting, general purpose, excellent metal & plastic adhesion.
<b>LOCTITE® EA E-60NC™</b> IDH 237115 (400ml Cartridge) IDH 233988/233990 (Pails)	Black	10,000	60	-40 °C/°F	177/351	✓	✓	✓	✓	Contact Henkel	Long setting, general purpose, good metal adhesion.
<b>LOCTITE® EA E-05MR™</b> IDH 1086599 (400ml Cartridge) IDH 1087602/1087603 (Pails)	Clear	21,000	10	-40 °C/°F	177/351	✓	✓		✓	Contact Henkel	Very fast setting, general purpose, good metal adhesion.
<b>LOCTITE® E-00CL/100CL™</b> IDH 237097 (400ml Cartridge)	Clear	5,000	3.5	-40 °C/°F	177/351	✓	✓	✓	✓	Contact Henkel	Very fast setting, general purpose, good metal & plastic adhesion.
<b>LOCTITE® AA H3101™</b> IDH 2018429 (400ml Cartridge) IDH 2018437/475387 (Pail)	Cream	70,000	15	-40 °C/°F	121/250	✓	Contact Henkel	✓	Contact Henkel	Contact Henkel	Fast setting, thixo, general purpose adhesive to metals & plastics, NSF approved.

## END CAP BONDING &amp; END CAP REPLACEMENT – TWO PART PU

TWO-PART POLYURETHANE SYSTEMS – TYPICAL PROPERTIES											
PRODUCT NUMBER	POLYOL/ ISO	VOL. MIX RATIO (A:B)	MASS MIX RATIO (A:B)	MIXED VISCOSITY	SHORE HARDNESS	GEL TIME (100 G AT 77°F/25°C)	VISCOSITY (cPs)	DENSITY (LBS/GAL)	COLOR	DESCRIPTION	
<b>LOCTITE® Stycast® 0151™ PT A AND LOCTITE® Stycast® 0151™ PT B COMBINED</b>											
<b>LOCTITE® Stycast® 0151™ PT A</b> IDH 1085659 (Drum)	Polyol	3:1	3.57:1	1,600	75 (D)	2.5 min.	3,200	1.5	White	Oil, diesel fuel, hydraulic fluid, transmission fluid, anti-freeze compatible, temp. resist to 120°C – flame retardant 94V-0	
<b>LOCTITE® Stycast® 0151™ PT B</b> IDH 1085658 (Drum)	Iso										
<b>LOCTITE® 8101™ B3 AND LOCTITE® UK 5400™ COMBINED</b>											
<b>LOCTITE® 8101™ B3</b> IDH: Consult Henkel	Polyol	3.4:1	4:1	2,650	60 (D)	Potlife (68°F/20°C, 120g) 3 min.	8,000	1.45	Cream	Oil, fuel, hydraulic fluid	
<b>LOCTITE® UK 5400™</b> IDH: Consult Henkel	Iso										

## END CAP BONDING & FIRST PLEAT/LAST PLEAT – ONE PART HEAT CURED EPOXIES

EPOXY ADHESIVES – TYPICAL PROPERTIES											
PRODUCT NUMBER	COLOR	VISCOSITY (cPs)	CURE TIME @ 160°C/320°F (MIN.)	SERVICE TEMPERATURE (°C/°F)		CHEMICAL RESISTANCE					DESCRIPTION
				MIN.	MAX.	OIL	TRANS FLUID	GAS, DIESEL	SOLVENTS	ACIDS BASES	
<b>LOCTITE® EA 3985™</b> IDH 826124 (Liter) IDH 324130 (Pail)	Black	50,000	30	-40 °C/°F	155/311	✓	✓	✓	Contact Henkel	Contact Henkel	General purpose, low viscosity.
<b>LOCTITE® EA 9432™ NA</b> IDH 398480 (2 lb Can) IDH 398479 (Pail)	Grey	250,000	15	-40 °C/°F	200/392	✓	✓	✓	✓	✓	High temp resistance, high strength, surface insensitive.
<b>LOCTITE® EA A-316-30™</b> IDH 1521040 (1 Gallon)	Grey	250,000	5	-40 °C/°F	190/374	✓	✓	✓	✓	✓	High temp. and high chemical resistance (SKYDROL® resistance).
<b>LOCTITE® EA A-329-14™</b> IDH 1215376 (Pail)	Grey	Paste	3	-40 °C/°F	155/311	✓	✓	✓	✓	Contact Henkel	High viscosity (thixo), high strength.
<b>LOCTITE® EA A-316-43™</b> IDH 1215357 (Pail) IDH 1215358 (Drum)	Beige	25,000	3	-40 °C/°F	155/311	✓	✓	✓	✓	Contact Henkel	Thermal shock resistant, high chemical resistance (SKYDROL® resistance).
<b>LOCTITE® EA A-304-26™</b> IDH 1215343 (Pail)	Grey	19,500	5	-40 °C/°F	155/311	✓	✓	✓	✓	✓	General purpose, low viscosity.
<b>LOCTITE® EA A-304-29™</b> IDH 1215370 (Pail)	Grey	100,000	5	-40 °C/°F	155/311	✓	✓	✓	✓	✓	General purpose, high viscosity.

## END CAP BONDING – PUR HOT MELT

HOT MELT ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NUMBER	COLOR	VISCOSITY	OPEN TIME (SEC.)	TEMPERATURE RESISTANCE	CHEMICAL RESISTANCE			DESCRIPTION
					OIL	TRANS FLUID	GAS, DIESEL	
<b>TECHNOMELT® PUR™ 9016™</b> IDH 1223000 (Pail)	Amber	7,500 at 121°C/250°F	Short: (10-20)	Very high	✓	✓	✓	Extrusion, spray or roll coatable, 250°F temp. resistance, very fast setting, high deflection resistance.
<b>TECHNOMELT® PUR™ 246CLV™</b> IDH 1100203 (Pail) IDH 970446 (Drum)	Amber	18,000 at 82°C/180°F	Medium: (40-60)	Very high	✓	✓	✓	Excellent adhesion to difficult to bond substrates with low dispense temperatures.

## END CAP DE-MOLDING

MOLD RELEASE – TYPICAL PROPERTIES				
PRODUCT NUMBER	TYPE	FINISH	SUBSTRATES RELEASED	DESCRIPTION
<b>LOCTITE® Frekote® EXITT™</b> IDH 398492 (9.5oz)	Silicone	High gloss	Thermoset PUs and hot melts	Silicone mold release agents offer superb release properties, choice of finish, and excellent part detail to meet your specific molding requirements.
<b>LOCTITE® Frekote® LIFT™</b> IDH 471913 (9.5oz)	Sacrificial	Semi-gloss	Thermoset PUs and hot melts	Silicone mold release agents offer superb release properties, choice of finish, and excellent part detail to meet your specific molding requirements.

## FLUID FILTERS – PRODUCT SELECTION GUIDE

## MECHANICAL FLUIDS

**PA HOT MELTS –  
PLEATING & EDGE SEALING  
FIRST PLEAT/LAST PLEAT  
END CAP BONDING  
END CAP REPLACEMENT**

HOT MELT ADHESIVES – TYPICAL PROPERTIES									
PRODUCT NUMBER	COLOR	VISCOSITY @ 240°C/464°F	OPEN TIME (SEC.)	TEMPERATURE RESISTANCE	SOFTENING POINT (°C)/(°F)	CHEMICAL RESISTANCE			DESCRIPTION
						OIL	TRANS FLUID	GAS, DIESEL	
<b>TECHNOMELT® PA 2692™</b> IDH 1415054 (Bag)	Translucent light amber	4,200	Short: (10-20)	Very high	206/403	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance. Good chemical resistance – FDA 175.105 approved.
<b>TECHNOMELT® PA 6300™</b> IDH 1398258 (Bag)	Translucent light amber	3,700	Short: (10-20)	Very high	190/374	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance. Good chemical resistance – FDA 175.105 approved.
<b>TECHNOMELT® PA 2192B™</b> IDH 1396374 (Bag) IDH 1396799 (Sack)	Dark amber	4,200 at 210°C/410°F	Short- Medium: (20-25)	High	167/333	✓	Contact Henkel	✓	High temp. resistance, with excellent creep resistance & moisture resistance with excellent chemical resistance – FDA 175.105 approved.
<b>TECHNOMELT® PA 9069™</b> IDH 1392850 (Bag)	Amber	3,700 at 210°C/410°F	Short: (10-20)	Very high	185/365	✓	Contact Henkel	✓	Good chemical resistance and adhesion to plastic, metals and media – FDA 175.105
<b>TECHNOMELT® PA 2035™</b> IDH: Consult Henkel	Amber	4,750 at 232°C/450°F	Short: (10-20)	Very high	200/398	✓	Contact Henkel	Contact Henkel	High temp. resistance, with excellent creep resistance & moisture resistance with excellent chemical resistance.
<b>TECHNOMELT® PA-2030™</b> IDH: Consult Henkel	Amber	6,500 mPas at 200°C/ 392°F	Short: (20-30)	High	160/320				Low fogging according to DIN 75201 B.
<b>TECHNOMELT® PA 2384™</b> IDH 1022624 (Bag)	Amber	12,000 at 220°C/428°F	Medium: (40-60)	High	182/196	✓	Contact Henkel	✓	Excellent chemical resistance.

## CRIMP SEALING

ANAEROBIC ADHESIVES – TYPICAL PROPERTIES								
PRODUCT NUMBER	TYPE	SET SPEED	FLEXIBILITY	TEMP RESISTANCE	COLOR	VISCOSITY (cPs)	OPEN TIME (SEC.)	DESCRIPTION
<b>LOCTITE® 6001™</b> IDH 467119 (250ml) IDH 493621 (1L MTO)	Anaerobic	Short	Low	High	Rosy white	3,000 cPs (thixo)	Fixtures 15 min.	Surface insensitive retaining compound, provides primerless adhesion to metal substrates, highly thixo liquid, max gap fill 0.015" diametral.
<b>LOCTITE® 620™</b> IDH 135514 (50ml) IDH 135515 (250ml)	Anaerobic	Moderate	Low	High	Green	8,500 cPs	Fixtures 1 hr.	Provides adhesion to metal substrates, high temp. resistance to 450°F, max gap fill 0.015" diametral.
<b>LOCTITE® 5182™</b> IDH 88128 (850ml)	Anaerobic	Moderate	High	Moderate	Red	Gel	Fixtures 25 min.	Provides adhesion to metal substrates, high temp. resistance to 300°F, max gap fill 0.050" diametral, deaerated for gasketing.





# FUNCTIONAL COATINGS – SOLUTIONS FOR METAL PRETREATMENT

Henkel offers a full range of metal pretreatment solutions to reduce process steps, improve efficiency, and increase cost savings. Our solutions will help you achieve enhanced paint adhesion and corrosion protection with less energy and water consumption, less wastewater, and more environmentally conscious formulas.

## The Henkel Portfolio

### CLEANERS

- ▶ Process
- ▶ Industrial
- ▶ Specialty
- ▶ Pickles
- ▶ Strippers
- ▶ Alkaline
- ▶ Neutral
- ▶ Conditioners

BONDERITE® cleaners help to increase efficiency, lower operating costs, and simplify your daily processes.

### METAL PRETREATMENT AND CONVERSION COATINGS

- ▶ Iron phosphate, zinc phosphate, manganese phosphate
- ▶ New generation coatings (nanoceramics)
- ▶ Light metal finishing (chrome, non-chrome technologies, anodizing)

BONDERITE® metal pretreatments and conversion coatings set a high standard for corrosion protection and paint adhesion. These high-performance, sustainable products can help improve your process reliability and are available in multiple options for dip or spray applications.



## Henkel Process Services

### Process selection

Henkel's experts consult with customers to match their individual requirements to the right Henkel process.

### Analytic and process validation

Henkel analyzes the complete production process for customers, reducing production cycle times and rejection rates.

### Start-up of application and lab testing

Henkel tests applications of your process in our labs and ensures that Henkel products can be smoothly integrated into your plant.

## COATINGS

- ▶ Electroceramic coating
- ▶ Autophoretic coating (A-Coat)
- ▶ Rust prevention
- ▶ Break-in lubricant coating

BONDERITE® coating processes deliver anti-corrosion, friction reduction, and improved heat resistance benefits while offering a number of environmental benefits.



## Key Henkel Processes

Henkel's focus on innovation has led to the development of new, more efficient surface treatment processes that offer environmental benefits and reduced energy and CO<sub>2</sub>.

- **Henkel Nanoceramic Process:**

Our **BONDERITE® M-NT 1™** conversion coating provides a phosphate-free alternative to traditional iron phosphate.

- **Henkel Autodeposition Process:**

Our **BONDERITE® M-PP** autodeposition process combines metal pretreatment and finishing in one process, increasing efficiency along with energy and cost savings.

Read more about these innovative processes on the following page.



## Equipment

All our product solutions are supported by a full range of dispensing equipment that can be easily integrated into your existing manufacturing processes.

### Process optimization

Henkel works with customers to design simpler and more efficient production processes, with a focus on meeting environmental and safety criteria.

### Customer training

Henkel offers comprehensive training to help our customers understand our products in detail and learn correct application methods.

# FUNCTIONAL COATINGS AND METAL PRETREATMENT SOLUTIONS

## Henkel Nanotechnology Solutions

MORE SAVINGS, FEWER STEPS

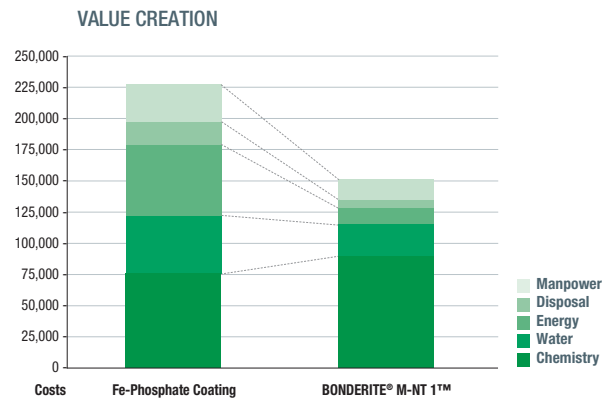
### BONDERITE® M-NT 1™

The BONDERITE® M-NT 1™ conversion coating is single-part zirconium-based nanotechnology, which provides a phosphate-free alternative to traditional iron phosphate. It runs at low temperatures and is completely phosphate- and regulated heavy metal-free, to reduce energy consumption and waste removal. BONDERITE® M-NT 1™ is suitable for dip and spray applications.

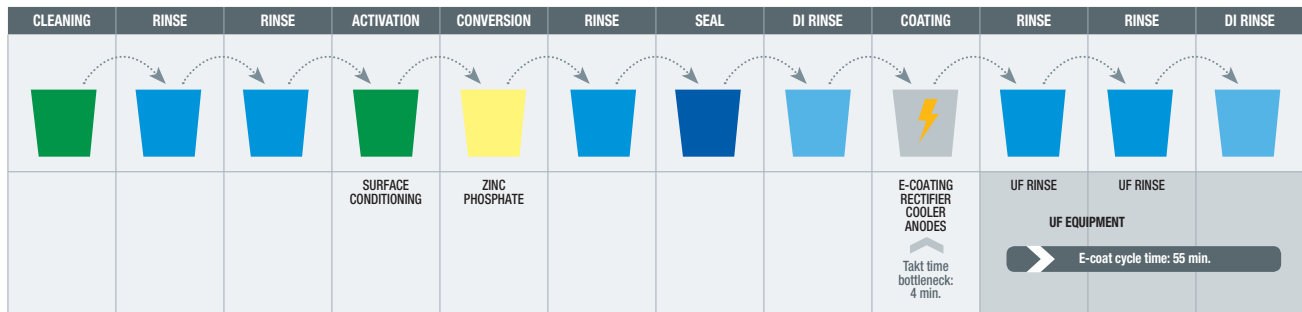
### Key Benefits:

The Henkel Nanoceramic process offers significant savings in manpower, disposal, energy, and water costs compared to traditional processes:

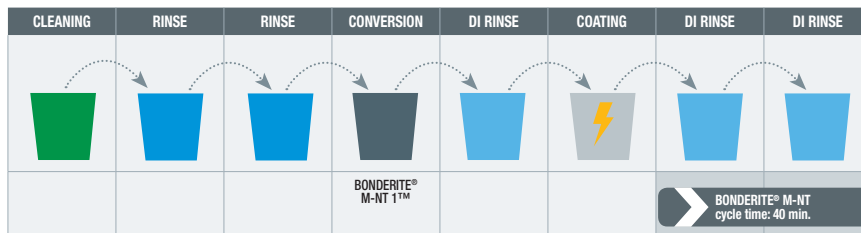
- **Lower energy and water use:** BONDERITE® M-NT 1™ operates at ambient temperatures, reducing energy use and associated CO<sub>2</sub>
- **Reduced hazardous waste:** Free of nickel, phosphates, Volatile Organic Compounds (VOCs) and regulated chemicals
- **Marginal sludge formation:** Significant savings in hazardous waste generation
- **Fewer process steps:** Activation and passivation are no longer required; contact times are simultaneously reduced



### ▶ TRADITIONAL MULTI-STEP PROCESS



### ▶ HENKEL NANO CERAMIC PROCESS



## Henkel Autodeposition Solutions

ENHANCED CORROSION PROTECTION FOR DEMANDING APPLICATIONS

### BONDERITE® M-PP

The BONDERITE® Autodeposition process delivers a highly corrosion-resistant, thin, organic coating while increasing process efficiency over traditional finishing methods. It combines metal pretreatment and finishing in one process, providing a lasting finish – both inside and outside of parts.

### Key Benefits:

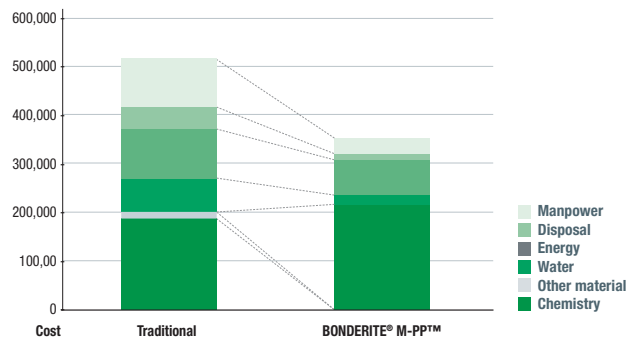
Henkel's Autodeposition process provides substantial savings compared to traditional e-coating methods:

- **Requires significantly less** manpower and equipment, less cycle time, energy, part rework and handling
- **Reduced energy:** BONDERITE® M-PP and powder coating topcoats are “co-cured” in a single oven, significantly reducing energy requirements and the production footprint
- **Environmental benefits:** No toxic heavy metals, very low VOCs

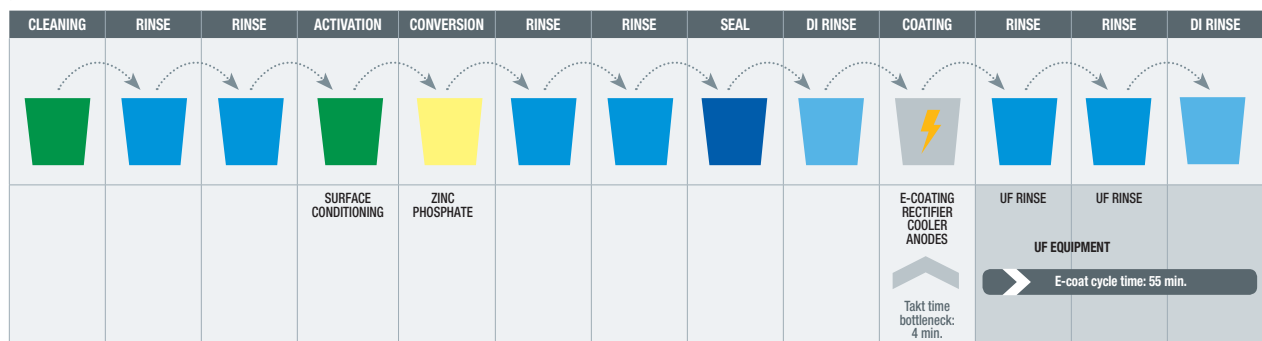
### PROCESS ADVANTAGES

- Unlimited throwing (wetting) power with uniform coverage
- Coats fully assembled parts
- Inside and outside part protection
- No electrical contacts required

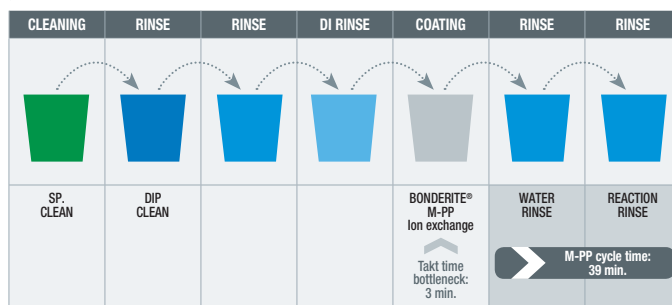
### VALUE CREATION



### ▶ TRADITIONAL MULTI-STEP PROCESS



### ▶ HENKEL AUTODEPOSITION PROCESS

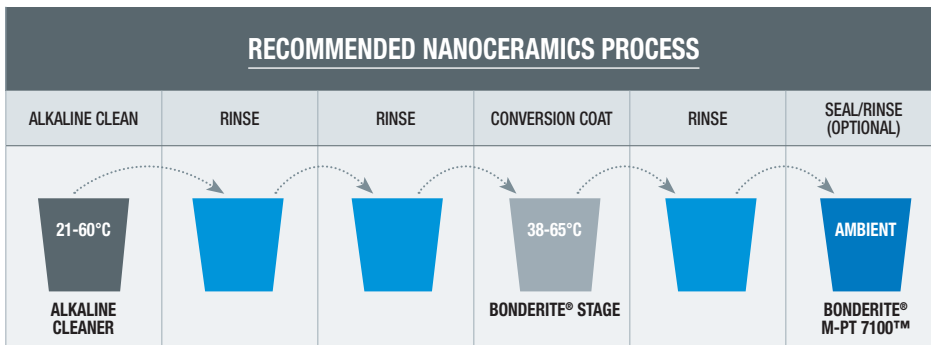
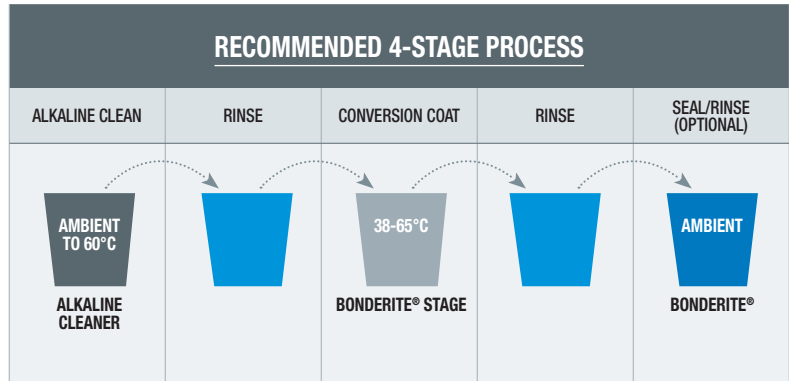
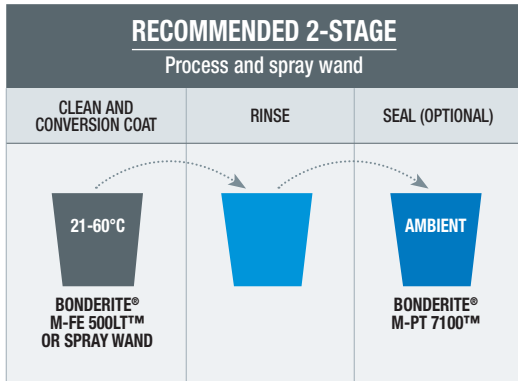


### PRODUCT LINE SUPPORT

Henkel's BONDERITE® team is made up of chemists, engineers, application specialists and pilot plant facilities that can assist you in the evaluation, design and installation of autodeposition coating processes. For more information, please contact your Henkel representative for assistance.

# FUNCTIONAL COATINGS AND METAL PRETREATMENT SOLUTIONS

YOUR APPLICATION	METAL AND PAINT PRETREATMENT				
	Cleaning				
	Phosphate-free	Steel	Aluminum	Pickle	Multi-Metal
<b>STEP 1</b> ▶ Pick a cleaner					
<b>STEP 2</b> ▶ Pick a conversion coating					
<b>STEP 3</b> ▶ Seal it					
SOLUTION	BONDERITE® C-AK 305N™	BONDERITE® C-AK 305™	BONDERITE® C-AK 412™	BONDERITE® C-IC 182B™	BONDERITE® C-AK 1520™
<b>Application Temperature</b>	37°C-60°C	37°C-60°C	54°C-82°C	82°C	43°C-60°C
<b>Concentration by Volume</b>	1-3%	2-4%	1-5%	5-30%	1-3%
<b>Contact Time</b>	5-25 sec.	5-25 sec.	1-15 min.	1-15 min.	30-80 sec.
<b>Application</b>	Spray	Spray	Spray, Immersion	Spray, Immersion	Spray, Immersion
<b>Acid/Alkaline</b>	Alkaline	Alkaline	Alkaline	Acid	Alkaline



METAL AND PAINT PRETREATMENT									
Conversion Coating							SEAL / POST RINSE (CHROME-FREE)		
1-STAGE	2-STAGE			4-STAGE		5-STAGE	SEAL / POST RINSE (CHROME-FREE)		
Spray Wand	Spray Wand	Cleaner/Coater		Iron Phosphate		Nanoceramic	Dry-in-Place	Organic	Inorganic
BONDERITE® M-FE 101™	BONDERITE® M-FE 200™	BONDERITE® M-FE 500LT™	BONDERITE® M-FE 700™	BONDERITE® M-FE 1030™	BONDERITE® M-FE 1090™	BONDERITE® M-NT 1™	BONDERITE® M-PT 7100™	BONDERITE® M-PT 99X™	BONDERITE® M-PT 50NC™
49°C-88°C	54°C-88°C	21°C-60°C	43°C-65°C	38°C-49°C	43°C-46°C	Ambient	Ambient	Ambient	21°C-38°C
1-3%	1-6%	2-4%	4-8%	3-4%	2-6%	3-5%	5-10%	3%	10%
30-180 sec.	30-180 sec.	1-2 min.	1-5 min.	45-90 sec.	30 sec.-5 min.	20-120 sec.	5-15 sec.	20-120 sec.	15-60 sec.
Spray	Spray	Spray	Spray, Immersion	Spray	Spray, Immersion	Spray, Immersion	Spray	Spray, Immersion	Spray, Immersion
Acid	Acid	Acid	Acid	Acid	Acid	Acid	Acid	Acid	Acid

AUTODEPOSITION PROCESS (PRETREATMENT AND FINISHING COMBINED)				
7-STAGE				
	Steel	Steel	Steel	Steel
SOLUTION	BONDERITE® M-PP 866™	BONDERITE® M-PP 930™	BONDERITE® M-PP 935G™	BONDERITE® M-PP 966™
Application Temperature	20-22°C	20-22°C	20-22°C	20-22°C
Concentration by Volume	11-12%	11-12%	10%	12%
Contact Time	90-120 sec.	90-120 sec.	90-120 sec.	60-180 sec.
Application	Immersion	Immersion	Immersion	Immersion
Acid/Alkaline	Acid	Acid	Acid	Acid





# HENKEL PARTNERSHIP

In addition to offering the broadest product portfolio in the adhesives industry, Henkel provides an array of services to help our filtration customers optimize their manufacturing processes, improve efficiency and reduce overall costs. The following services are available worldwide.



## MANUFACTURING EXCELLENCE

Henkel has decades of success optimizing manufacturing processes. We can analyze your complete manufacturing process and provide tailor-made recommendations for reducing production cycle times and rejection rates, thereby lowering your overall costs and increasing your productivity.



## LAB TESTING

Henkel's testing capabilities can provide complete data, relevant and applicable to your process, on our product recommendations. Whether you want to analyze a single component of your production process or review the complete system, our labs can provide all the data you need.



## CUSTOMER TRAINING

Henkel offers an array of customized training programs to help customers learn the details of our product technologies and how to apply them effectively. We can also train you to use our custom-designed equipment efficiently. Our Technology Days provide additional training and demonstrations of our newest innovations.



## VALUE CALCULATORS

Using our Value Calculators, our adhesives specialists can accurately analyze the total costs of your adhesive processes and determine your savings potential. Simply arrange an appointment with our specialists, and they will visit your production facilities to conduct an in-depth analysis.



## ANALYTICAL SERVICES

Henkel provides comprehensive analysis of all steps in your manufacturing process using our own technical staff and industry experts. We will identify problem points on the production line and recommend improvements to the manufacturing process, along with Henkel products and equipment that can help improve results. These services can also include equipment tear-downs, surface analysis and testing.

# INDEX

If an item number or package size is not provided, please consult your Henkel representative.

Product & Item No.	Product Description	Package Size	Page Number
512143	AQUENCE® 034-008-223™ (7348H)	(Drum)	19
556205	AQUENCE® 034-008-223™ (7348H)	(Tote)	19
513104	AQUENCE® 51-3130™	(Pail)	19
608442	AQUENCE® AV 5343™	(Drum)	19
553346	AQUENCE® AV 5343™	(Pail)	19
751092	AQUENCE® AV 797™	(Drum)	19
1059677	AQUENCE® AV 797™	(Pail)	19
1222861	AQUENCE® CG 9012™	(Drum)	19
1222859	AQUENCE® CG 9012™	(Pail)	19
1222865	AQUENCE® CG 9012™	(Tote)	19
513786	AQUENCE® LA 5112™	(Drum)	19
513787	AQUENCE® LA 5112™	(Pail)	19
513783	AQUENCE® LA 5112™	(Tote)	19
1216492	AQUENCE® LA 724A™ UTCL	(Drum)	19
1222666	AQUENCE® LA 724A™ UTCL	(Pail)	19
1216493	AQUENCE® LA 724A™ UTCL	(Tote)	19
1647332	AQUENCE® LA 774B™	(Drum)	19
1647331	AQUENCE® LA 774B™	(Tank)	19
854328	AQUENCE® PL 395HC™	(Pail)	19
—	BONDERITE® C-AK 305N™	—	38
—	BONDERITE® C-AK 305™	—	38
—	BONDERITE® C-AK 412™	—	38
—	BONDERITE® C-AK 1520™	—	38
—	BONDERITE® C-IC 182B™	—	38
—	BONDERITE® M-FE 101™	—	39
—	BONDERITE® M-FE 200™	—	39
—	BONDERITE® M-FE 500LT™	—	39
—	BONDERITE® M-FE 700™	—	39
—	BONDERITE® M-FE 1030™	—	39
—	BONDERITE® M-FE 1090™	—	39
—	BONDERITE® M-NT 1™	—	39
—	BONDERITE® M-PP 866™	—	39
—	BONDERITE® M-PP 930™	—	39

Product & Item No.	Product Description	Package Size	Page Number
—	BONDERITE® M-PP 935G™	—	39
—	BONDERITE® M-PP 966™	—	39
—	BONDERITE® M-PT 50NC™	—	39
—	BONDERITE® M-PT 99X™	—	39
—	BONDERITE® M-PT 7100™	—	39
135430	LOCTITE® 401™	(1lb)	17, 25
135429	LOCTITE® 401™	(20g)	17, 25
840071	LOCTITE® 435™	(1lb)	17, 25
840057	LOCTITE® 435™	(20g)	17, 25
135462	LOCTITE® 454™	(20g)	17, 25
209591	LOCTITE® 495™	(1lb)	17, 25
135467	LOCTITE® 495™	(1oz)	17, 25
135515	LOCTITE® 620™	(250ml)	32
135514	LOCTITE® 620™	(50ml)	32
1875842	LOCTITE® 4902™	(1lb)	17, 25
1875841	LOCTITE® 4902™	(20g)	17, 25
88128	LOCTITE® 5182™	(850ml)	32
493621	LOCTITE® 6001™	(1L MTO)	32
467119	LOCTITE® 6001™	(250ml)	32
—	LOCTITE® 8101™ B3	—	30
2018429	LOCTITE® AA H3101™	(400ml Cartridge)	30
475387	LOCTITE® AA H3101™	(Pail)	30
2018437	LOCTITE® AA H3101™	(Pail)	30
237097	LOCTITE® E-00CL/100CL™	(400ml Cartridge)	30
826124	LOCTITE® EA 3985™	(Liter)	31
324130	LOCTITE® EA 3985™	(Pail)	31
398480	LOCTITE® EA 9432™ NA	(2 lb Can)	31
398479	LOCTITE® EA 9432™ NA	(Pail)	31
1215343	LOCTITE® EA A-304-26™	(Pail)	31
1215370	LOCTITE® EA A-304-29™	(Pail)	31
1521040	LOCTITE® EA A-316-30™	(1 Gallon)	31
1215358	LOCTITE® EA A-316-43™	(Drum)	31
1215357	LOCTITE® EA A-316-43™	(Pail)	31

Product & Item No.	Product Description	Package Size	Page Number
1215376	LOCTITE® EA A-329-14™	(Pail)	31
1086599	LOCTITE® EA E-05MR™	(400ml Cartridge)	30
1087602	LOCTITE® EA E-05MR™	(Pails)	30
1087603	LOCTITE® EA E-05MR™	(Pails)	30
237118	LOCTITE® EA E-30CL™	(400ml Cartridge)	30
1511653	LOCTITE® EA E-40EXP™	(200ml Cartridge)	30
1511896	LOCTITE® EA E-40EXP™	(Pails)	30
1511897	LOCTITE® EA E-40EXP™	(Pails)	30
1086081	LOCTITE® EA E-40HT™	(400ml Cartridge)	30
237115	LOCTITE® EA E-60NC™	(400ml Cartridge)	30
233988	LOCTITE® EA E-60NC™	(Pails)	30
233990	LOCTITE® EA E-60NC™	(Pails)	30
398492	LOCTITE® Frekote® Exitt	(9.5oz)	31
471913	LOCTITE® Frekote® Liftt	(9.5oz)	31
1265272	LOCTITE® H2U™	(Drum)	16
2123350	LOCTITE® HY 4090™	(50 ml cartridge)	17, 25
876402	LOCTITE® PE US5502™ A	(Tote)	16
234590	LOCTITE® SI 587™ Blue	(Cartridge)	17
256967	LOCTITE® SI 587™ Blue	(Drum)	17
234592	LOCTITE® SI 587™ Blue	(Pail)	17
193997	LOCTITE® SI 593™ Black	(Cartridge)	17
234602	LOCTITE® SI 593™ Black	(Pail)	17
212184	LOCTITE® SI 5900™ Black	(Cartridge)	17
230154	LOCTITE® SI 5900™ Black	(Drum)	17
230153	LOCTITE® SI 5900™ Black	(Pail)	17
1085659	LOCTITE® Stycast® 0151™ PT A	(Drum)	30
1085658	LOCTITE® Stycast® 0151™ PT B	(Drum)	30
1708482	LOCTITE® Stycast® US 5501™ B	(Tote)	16
1219038	LOCTITE® UK 072™ A	(Drum)	16
1219040	LOCTITE® UK 072™ B	(Drum)	16
1219067	LOCTITE® UK 180™ B	(Drum)	16
1219075	LOCTITE® UK 201™ A	(Drum)	16
—	LOCTITE® UK 5400™	—	16,30
—	LOCTITE® UK 8180N™	—	16
1217410	TECHNOMELT® 2631™	(Box)	19
1222925	TECHNOMELT® 2635™	(Box)	19
1989546	TECHNOMELT® 2787™	(Box)	20
2140353	TECHNOMELT® 2787™	(Tote)	20
73809	TECHNOMELT® 5303™	(Bag 20kg)	18,25
475559	TECHNOMELT® 6009S™	(Box)	18
1353256	TECHNOMELT® 7883™	(Bag)	20
1554389	TECHNOMELT® 8370™	(Box)	20
164989	TECHNOMELT® 8370™	(Sack)	20
1329423	TECHNOMELT® 8448™	(Bag)	20
1329233	TECHNOMELT® 8448™	(Tote)	20
1280350	TECHNOMELT® AS 269C™	(Bag)	19
1217801	TECHNOMELT® AS 771C™	(Box)	15

Product & Item No.	Product Description	Package Size	Page Number
1430067	TECHNOMELT® AS 870C™	(Box)	15
1217872	TECHNOMELT® AS 870C™	(Sack)	15
1217873	TECHNOMELT® AS 871B™	(Box)	18
1640436	TECHNOMELT® AS 3112™	(Box)	15
—	TECHNOMELT® AS 3113™	—	15
—	TECHNOMELT® AS 3115™	—	15
1700025	TECHNOMELT® AS 3210™	(Box)	18
1762905	TECHNOMELT® AS 3254™	(Box)	15
554668	TECHNOMELT® AS 4206™	(Box)	18
1730862	TECHNOMELT® AS 4216™	(Box)	18, 20
266079	TECHNOMELT® AS 4222™	(Bag)	18
1649575	TECHNOMELT® AS 5669™	(Box)	15
—	TECHNOMELT® AS-5980NF™	—	15
1649879	TECHNOMELT® AS 8361™	(Box)	21
1554389	TECHNOMELT® AS 8370™	(Box)	15
1649879	TECHNOMELT® AS 8370™	(Sack)	15
1649568	TECHNOMELT® AS 8647™	(Box)	15,20
1655665	TECHNOMELT® AS 8647™	(Drum)	15,20
1629993	TECHNOMELT® AS 8848™	(Box)	17
1059364	TECHNOMELT® AS 8848™	(Drum)	17
1348378	TECHNOMELT® AS 8890™	(Drum)	18
1217888	TECHNOMELT® COOL 889A™	(Box)	19
1755203	TECHNOMELT® EM 4955™	(Box)	20
1342349	TECHNOMELT® EM 8572™	(Box)	19
1217279	TECHNOMELT® GA 1214™	(Box)	15
—	TECHNOMELT® PA-2030™	—	23,32
—	TECHNOMELT® PA 2035™	—	22,24,32
1398263	TECHNOMELT® PA 2157™	(Bag)	22
1396374	TECHNOMELT® PA 2192B™	(Bag)	22,24,32
1396799	TECHNOMELT® PA 2192B™	(Sack)	22,24,32
1396375	TECHNOMELT® PA 2333B™	(Bag)	23
1022624	TECHNOMELT® PA 2384™	(Bag)	32
1415054	TECHNOMELT® PA 2692™	(Bag)	22,24,32
1398265	TECHNOMELT® PA 6202™	(Bag)	22
1861214	TECHNOMELT® PA 6238™	(Bag)	22
38358	TECHNOMELT® PA 6239™	(Bag)	22
1397818	TECHNOMELT® PA 6240™	(Bag)	22
1398258	TECHNOMELT® PA 6300™	(Bag)	22,24,32
1392850	TECHNOMELT® PA 9069™	(Bag)	23,24,32
1407069	TECHNOMELT® PS 8843™	(Box)	18
884120	TECHNOMELT® PS 8843™	(Drum)	18
970446	TECHNOMELT® PUR™ 246CLV™	(Drum)	25,31
1100203	TECHNOMELT® PUR™ 246CLV™	(Pail)	25,31
1223000	TECHNOMELT® PUR™ 9016™	(Pail)	25,31
1724951	TECHNOMELT® SUPRA™ 150™	(Box)	19
1217803	TECHNOMELT® SUPRA™ 772C™	(Box)	19
1217817	TECHNOMELT® SUPRA™ 796C™	(Tote)	19

**LOCTITE®**  
**BONDERITE®**  
**TECHNOMELT®**  
**TEROSON®**  
**AQUENCE®**

**U.S.A.**

Henkel Corporation  
Engineering Adhesives  
One Henkel Way  
Rocky Hill, Connecticut 06067  
Tel: 1.800.LOCTITE (562.8483)  
Tel: 860.571.5100  
Fax: 860.571.5465

**Canada**

Henkel Canada Corporation  
Engineering Adhesives  
2515 Meadowpine Blvd.  
Mississauga, Ontario L5N 6C3  
Tel: 1.800.263.5043 (within Canada)  
Tel: 905.814.6511  
Fax: 905.814.5391

[na.henkel-adhesives.com/filters](http://na.henkel-adhesives.com/filters)