



ELLSWORTH

ADHESIVES



SPACE TECH EXPO | USA

May 13-15th

Booth #3015



info.us@ellsworth.com | ellsworth.com

Space Tech Catalog

e ELLSWORTH ADHESIVES

THE ADHESIVE EXPERTS

Adhesives Sealants Coatings Encapsulants Lubricants Tapes
Specialty Chemicals Dispensing & Curing Equipment

Ellsworth Adhesives Line Card

e ELLSWORTH ADHESIVES

Introduction to Ellsworth Adhesives

800.888.0698 | ellsworth.com

Introduction to Ellsworth Adhesives

e ELLSWORTH ADHESIVES

AEROSPACE INDUSTRY

Aerospace Industry

Exploring the frontiers of tomorrow

Ablat Tiles

Phenolic ablative materials for space and satellite applications

Dow Ablatives Site

ELECTRONICS AND ADVANCED ASSEMBLY

Imagine the frontiers of tomorrow

Aerospace, defense & avionics

Dow

Dow Aerospace, Defense, & Avionics

Dow

New DOWSIL™ LPA-4000 Sprayable RTV Ablative can handle the heat

The heat is on

Addressing the challenges of these fast-paced emerging technologies, DOWSIL™ LPA-4000 provides heat protection, helps to enable application efficiency, offer reduced cycle time and provides a high level of protection for launch infrastructure, and now DOWSIL™ LPA-4000 Sprayable RTV Ablative stands up to the heat. When compared to competitive materials, the new advanced silicon ablative offers tough, flexible characteristics, cures in eight to ten hours, and is solvent free. In addition, it is non-curing and capable of coating vertical surfaces. Its direct comparison above application on vertical surfaces to target cost reduction in a single event – no need to apply successive coats, saving both time and cost. Let us show you.

DOWSIL™ LPA-4000 Sprayable RTV Ablative	Competitor A	Competitor B

DOWSIL™ LPA-4000 Ablative

Satellites & Payloads

- Wire bond die attach assembly
- Semiconductor protection & encapsulation
- PV lamination & bonding
- Thermal management (insulation, shielding, conductivity)
- Vibration control

Spacecrafts

- PV lamination & bonding
- External thermal protection
- Population heat shielding
- EMI shielding & bonding
- Gas-tight protection & encapsulation

Launch Vehicles

- External & internal thermal protection
- Thermal barrier coating
- Thermal management (insulation, shielding, conductivity)
- Electronic thermal coating & protection
- Gas-tight protection & encapsulation

Launch Structure

- All-surface coating & protection
- High-temperature heat protection

ELLSWORTH
817.624.1224 | ellsworth.com
adhesives@ellsworth.com

Dow Spaceship Application

FISNAR

ENGINEERED DISPENSING SOLUTIONS

Version 2.2

Fisnar® Catalog

e ELLSWORTH ADHESIVES

ADHESIVE SOLUTIONS FOR AEROSPACE AND DEFENSE

The aerospace and defense industry requires the highest quality adhesives to ensure safety and reliability in aircraft production. These products must meet strict requirements and specifications such as MIL-STD-883C, MIL-STD-883D, and ASTM. Ellsworth Adhesives provides products from the top manufacturers in the industry supported by our experienced engineering sales representatives (ESRs).

Contact an expert today to help choose the right material for your aerospace application.

CONTACT AN EXPERT

Ellsworth Adhesives partners with the top manufacturers in the aerospace and defense industry. Discover the unique solutions each has to offer.

Henkel LOCTITE **Dow** **DYMAX**

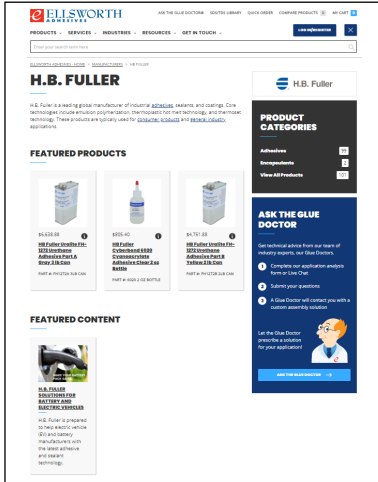
HENKEL LOCTITE® FILM ADHESIVES

Henkel Loctite offers a broad range of film adhesives that enhance the performance, safety, and efficiency of aircraft manufacturing. Film adhesives come in a wide range of formulations and meet and exceed testing.

ADVANTAGES OF FILM ADHESIVES

Adhesive Solutions for Aerospace Webpage

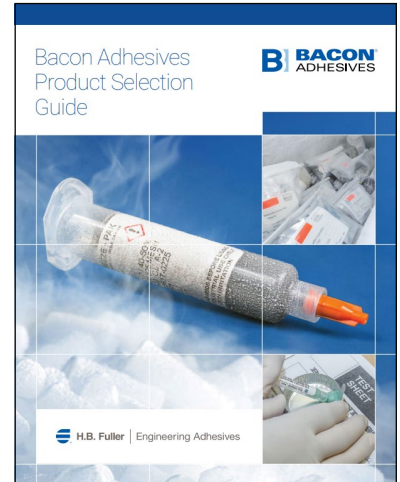
Space Tech Catalog



H.B. Fuller Webpage



H.B. Fuller Aerospace Sealants



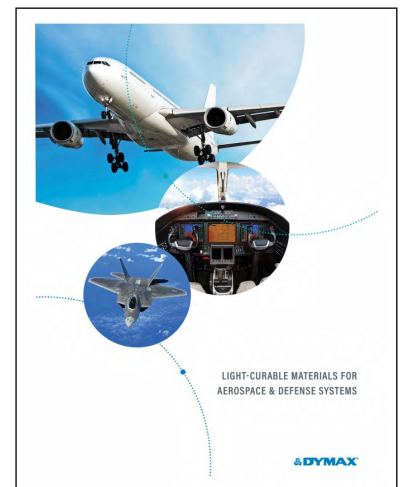
H.B. Fuller Adhesives Product Selection



Dymax Maskants Product Guide



Dymax Satellites & Spacecrafts Flyer



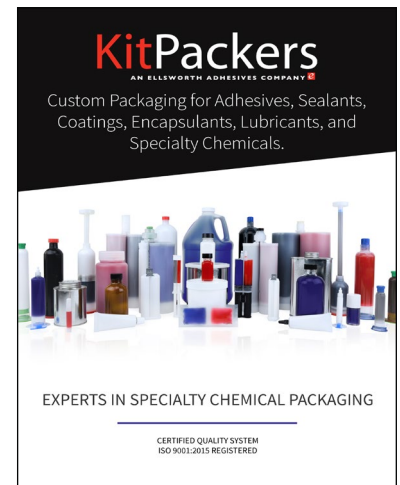
Dymax Light Curable Materials



Converting Services



Electronic Converting Services



KitPackers Custom Packaging

Space Tech Catalog

ePLUS INVENTORY SOLUTIONS
AN ELLSWORTH ADHESIVES PROGRAM

ePLUS Inventory Solutions is a cloud-based Inventory management program, which provides real-time inventory visibility to our customers' on-hand inventory and usage levels. Inventory is tracked on minimum/maximum levels and is automatically reordered when an item is consumed and hits its minimum level.

BENEFITS

- Custom Reporting**
 - Real-time item transaction and usage reports
 - Custom shelf life reporting on expiration dates
- Inventory Cost Savings**
 - Help target Days Inventory On Hand (DIOH) goals
 - Reductions in storage through adjustable minimum levels
- Shelf Life Visibility**
 - Shelf life tracking, lot level detail, and expiration visibility through the items entire life cycle
 - Risk-In First Out (FIPO) enforced through automated alerts and reporting
- Process Cost Savings**
 - Automated re-ordering and PO consolidation
 - Reduction in procurement time to receive material
- Reduce Stock Outages & Expedite**
 - Inventory visibility at all times including multi-site visibility enabling easy inventory transfer
 - Fewer expedites through proactive adjustments in inventory levels
- Transportation Savings**
 - Flexible replenishment schedules allow for consolidated shipments
 - Reduction of expedited shipments through inventory visibility and planning

800.888.0698 | ellsworth.com

ePlus Inventory Solutions

ePLUS RFID
RADIO FREQUENCY IDENTIFICATION

HOW DOES IT WORK?

Radio Frequency Identification (RFID) uses electromagnetic fields to automatically identify and track tags attached to objects. RFID works with the combination of both tags and readers. The readers (or antennas) receive signals from the tags. The tags contain electronically stored information such as part number, lot number, and shelf life data which is transmitted with radio waves to the reader. The reader then sends this information to the ePlus software, updating inventory accordingly. Each Ellsworth Adhesives RFID tag is serialized for full item and lot traceability.

BENEFITS

- Drives cost savings, operational efficiencies, and process improvement through automation.
- Serialized labeling and inventory tracking.
- RFID antennas read numerous tags at the same time, saving employees multiple trips.
- Provides real-time inventory visibility.
- Full support shelf life traceability.
- Manage multiple types of items.

SOLUTIONS

- RFID Enabled Cabinet
- RFID Flammable Cabinet
- RFID Gateway

800.888.0698 | ellsworth.com

ePlus RFID

ResinLab
AN ELLSWORTH ADHESIVES COMPANY

ADHESIVES & ENCAPSULANTS FOR
ELECTRONICS
APPLICATIONS

LEADING MANUFACTURER OF ADHESIVES & ENCAPSULANTS

Focus on a leading manufacturer with state-of-the-art production equipment, application and technical expertise. Large or small ResinLab operators in delivering encapsulants and adhesives to exact specifications.

ADHESIVES

ResinLab offers a wide variety of adhesive chemistries including epoxies, cyanoacrylates, acrylics and polyurethanes. All offer high strength bonds to an array of substrates with varying processing thermal and/or electrical conductivity. ResinLab also developed a full line of RFID-compliant adhesives with several large component low temperature curing products, ideally suited for inline PCB assembly.

ENCAPSULANTS

An encapsulant also known as a potting compound is designed to electrically insulate and environmentally protect products such as printed circuit boards from moisture, chemicals, mechanical shock and vibration. ResinLab specializes in epoxy encapsulants for rugged electrical or electronic encapsulation applications, including thermally conductive and UL-recognized flame retardant varieties. ResinLab also offers a line of urethane encapsulants for a wider chemical resistance that work well in low temperature environments with high levels of flexibility.

800.888.0698 | ellsworth.com

ResinLab Electronics

VERSAMIX
BY FLUID RESEARCH

VERSATILE 2K MIXING

The VersaMix® meter mix system is designed to simplify two component dispensing with a versatile, highly engineered design. This dual servo-driven, variable ratio system offers ultimate control of shot size and volume with repeatable results across materials. VersaMix® is ideal for a range of applications like potting, CIPG, FIPG, syringe filling, filament winding, RTM, VARTM, flexible packaging/converting, and encapsulation, and is compatible with nearly any viscosity.

CONTROLLED & REPEATABLE RESULTS

VersaMix® users can accurately proportion materials to exact volumetric mix ratios from 1:1 to 10:1 thanks to a gravity fed positive displacement pump. The system can handle epoxies, urethanes, silicones, and more, with a variety of optional add-ons to customize for your unique application needs.

FEATURES

- Variable flow rate and shot sizes
- Independent speed control of dissimilar materials
- Programmable dispense volumes

TECHNICAL DATA

- Ratio range: 1:1 to 10:1
- Drive system: Dual servo driven
- Metering device: Positive displacement pumps (piston or cord)
- Viscosity range: Liquid to paste
- 10 to 15 cycles/min or more (dependent on viscosity)

800.888.0698 | ellsworth.com

VersaMix® Mixing Systems

ELLSWORTH ADHESIVES

INTRODUCING THE VERSAMIX® 2K METER MIX DISPENSING SYSTEM

Fluid Research® VersaMix® Changing the Game in 2K Meter Mixing

800.888.0698 | ellsworth.com

VersaMix® Intro Video

ELLSWORTH ADHESIVES

STEP 2: Program for calibration. In this example, we are measuring a 60-gram shot size with a 1:1 ratio of 30 grams each.

Fluid Research® - How to Calibrate VersaMix®

800.888.0698 | ellsworth.com

VersaMix® Calibration Video

ELLSWORTH ADHESIVES

Low-Pressure Overmolding Audiogram

Nina Blalock
Engineering Sales Representative

Rob Michael
Sales and Applications Engineer

800.888.0698 | ellsworth.com

Low-Pressure Overmolding Audiogram

MOLD-MAN SYSTEMS

Our New Melt on Demand Molding™ Table Top Machine For Thermoplastic Materials (tv)

MOLD-MAN 1050

- Precision flow and setting system
- Light curtain and safety activation
- 1-Ton clamping force
- Automatic touch screen operation
- Center core "On-Demand" type reservoir
- *Down with optional adjustable stand

800.888.0698 | ellsworth.com

Mold-Man® 1050 Machine Sales Sheet

ELLSWORTH ADHESIVES

MOLD-MAN SYSTEMS

Fluid Research® MOLD-MAN 1050 Thermoplastic Machine - Meltflow System™

800.888.0698 | ellsworth.com

Mold-Man® 1050 Machine Video