

Void fillers, adhesives and composite solutions

Aerospace materials for production, assembly and maintenance



Making a material difference in the aerospace industry



Araldite® Epibond® Epocast® Eposert™ Uralane®

Huntsman Advanced Materials is a leading global supplier of advanced, high-performance materials for the fabrication, assembly and repair of interior and exterior aircraft components. Prominent aerospace companies look to us for innovations in adhesives, laminating systems and void fillers.

Production process improvements, innovative designs, weight savings, compliance to stringent aerospace standards and low maintenance costs have become vital to success and can be achieved with our products.

Adhesives, composites and void fillers serving the global aerospace industry for more than 70 years



Reduced cycle time

Our solutions help unlock production bottlenecks by improving productivity without compromising technical performance.



Long term performance

Our adhesives offer even distribution of load over a bonded area, reducing the number of drilled holes and limiting points of entry for corrosion and stress.



Lightweight design

Our materials meet stringent mechanical requirements while offering a variety of compressive strength and density options, allowing for the lightest weight selection.



Flame retardancy

Many of our products are flame retardant and exhibit the low flame, smoke and toxicity characteristics required to comply with established regulations governing materials used in large civil and commercial aircraft.



Lower manufacturing costs

By reducing the number of joining and finishing operations, the overall production cycle can be reduced.

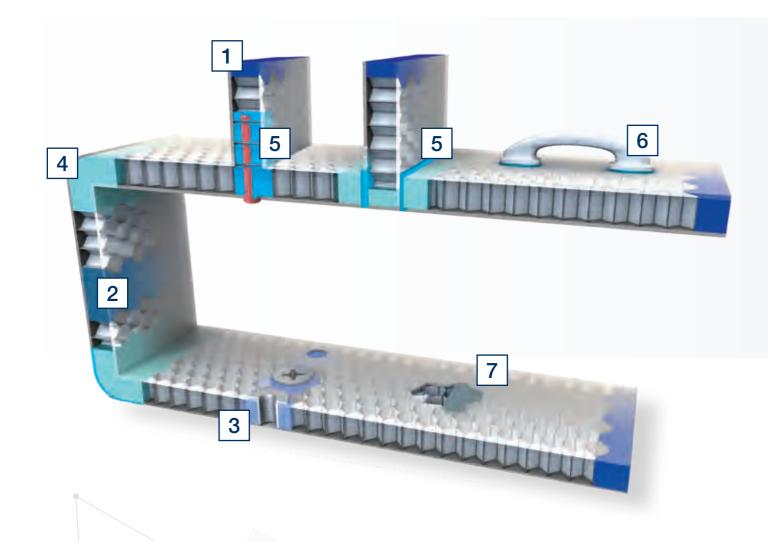
This saves on labor costs and results in improved productivity.



Sustainability

Our products are designed to comply with regional environmental regulations. Our global manufacturing footprint, local technical support and commercial teams ensure both close proximity with our customers and security of supply.

Our range of advanced technologies optimize production, assembly and repair operations



Huntsman's versatile adhesives, composites, edge and void fillers are used by aircraft manufacturers who serve commercial airlines, general aviation and the defense industry throughout the world. Our products are used in a wide range of applications ranging from honeycomb reinforcement, edge sealing, insert potting or bonding, panel forming, component bonding and laminating.

In our efforts to develop innovative solutions for the aerospace market, we strive to meet the high product standards set forth by the industry and federal regulations that govern the performance properties of materials used in aircraft: strength, weight, toughness, flexibility, low coefficient of thermal expansion, high resistance to corrosion and fatigue, flame retardancy, halogen-free formulations, noise and vibrational damping. Void fillers for core reinforcement and insert potting

- 1. Edge fill and close out
- 2. Panel reinforcement
- 3. Insert potting
- 4. Panel forming

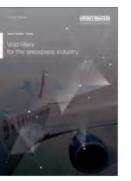
Adhesives for joining and bonding

- 5. Panel pin bonding
- 6. Component bonding

Laminating resins for composite production and repair

7. Manufacturing and repair







We help you select the right product for your needs

Our global aerospace brochure guides you through the main considerations that must be taken into account when selecting the right product for a specific production, assembly or repair operation. Use the enclosed selector guides to determine which products are best suited for your particular applications. For additional information, please contact your sales or technical representative.

Need technical help or a distributor?

Submit your questions to our technical team at:

www.aralditeadhesives.com

Araldite® and Epocast® void fillers enable weight savings and high strength Overhead bins Sidewall panels Cabin flooring Reinforcement Panel forming Edge sealing Insert potting For ditch/pot/fold applications, we Reinforcement of honeycomb panels Aircraft manufacturers and repair Medium and low-density grades of is needed to withstand high loading. stations use these materials to build Araldite® and Epocast® epoxy void offer a range of products with fast to Huntsman Epocast® products offer and re-furbish cabin components such fillers and Uralane® polyurethane moderate handling strength times,

Void fillers for core reinforcement and insert potting

Araldite® and Epocast® epoxy void fillers, and Eposert™ pre-cured inserts, provide solutions for edge sealing, insert potting, and for honeycomb assembly, reinforcement and repair. Our portfolio is qualified to Airbus, Boeing, Goodrich, Gulfstream, Bombardier, Bell, Rohr, Rolls Royce, and other key OEM specifications, and are listed as approved repair materials in Structural Repair Manuals and Service Bulletins. From nacelles, engines, rudders and radomes, to overhead bins, cabin doors, interior panels and cabin flooring, our products are found in a wide variety of parts today.

Find our product offerings in the enclosed selector guide ->

flexibility for interior construction and meet the most stringent requirements of numerous aircraft specifications. Huntsman also offers a unique range of Eposert™ pre-cured inserts that can be installed rapidly in a honeycomb core before fasteners are added. These inserts are well suited to reinforce composite floor panels, galley walls, bulkheads and lavatory cabinets.

as overhead baggage bins, floor panels and lavatory cabinets as well as flight control surfaces, nacelles and landing gear doors. Huntsman void fillers are produced in a range of densities to meet a variety of performance and handling requirements. Many of our edge sealing materials are selfextinguishing and feature easy to apply viscosities, as well as sag-resistance for use on vertical surfaces.

adhesives provide dependable reinforcement for honeycomb composite panels before inserting fasteners. Typical applications include composite floor panels, galley walls, bulkheads and lavatory cabinets.

optimum rheological properties to control product flow and high mechanical and impact performance.

Our high-performance Araldite®, Epibond® and Uralane® adhesives provide superior joining and bonding solutions for plastics, metals, composite materials and other substrates. Huntsman adhesives offer manufacturing process improvements and reductions in weight over other fastening methods. Additionally, manufacturers can select adhesives resistant to fatigue, chemicals and temperatures, with mechanical properties that vary from rigid to flexible and offer long-term durability. Our products are specified in numerous applications ranging from interior parts such as seats, lavatories, overhead bins, galleys and monuments to exterior parts such as nacelles, landing gear doors and control

Adhesives

for joining

and bonding

Find our product offerings in the enclosed selector guide ->

surfaces.



Laminating resins for composite production and repair

Huntsman epoxy laminating resin systems have been an industry standard for fabricating composite aircraft parts for many years. These products are used for the manufacturing and repair of composite radomes, fairings, flight control surfaces, cargo and cabin panels, and more.

Huntsman resins combine ease of handling with excellent mechanical strength to perform in the most demanding applications. Many of Huntsman's laminating resins are flame retardant and can be used to wet out fiberglass, carbon fiber and honeycomb core reinforcements.

Find our product offerings in the enclosed selector guide →





specifications

The majority of our products are qualified to aircraft manufacturers' specifications. They are qualified across platforms including fixed wing, rotorcraft and spacecraft, and across the aircraft life cycle from new design to MRO.

We offer high-performance products qualified to material specifications and continuously strive to increase these approvals through on-going innovation.

Aerospace Composite Technologies

M1368 - 001 Araldite® 2011

ABP 5-1158	Araldite [®] 2011
	Araldite® 2012
	Araldite® 2013
	Araldite® 2015
	Araldite® AV 121N-1 / HY 951
	Araldite® AY 103-1 / HY 951
	Araldite® AY 103-1/ HY 991
ABR 2-0179	Araldite® 2011
ABR 2-0181	Araldite® 2015
ABR 2-0183	Araldite® AV 121N-1 / HY 951
ABR 2-0184	Araldite® AY 103-1 / HY 951
ABR 2-0185	Araldite® AY 103-1/ HY 991
ABR 2-0186	Araldite® 2012
AIMS 05-04-103	Araldite® LY 5052 / Aradur® 5052
AIMS 08-01-001	Araldite® LY 5052 / Aradur® 5052
AIMS 08-02-001	Araldite® LY 5052 / Aradur® 5052
AIMS 10-03-001	Araldite® 1644 A/B
AIMS 10-03-005	Araldite® 252-1
AIMS 10-04-001	Uralane® 5774 A/C
AIMS 10-04-006	Araldite® 1570 FST A/B
AIMS 10-04-020	Araldite® 2011
AIMS 10-04-024	Araldite® 501 A/B
ASNA 4047	Araldite® 501 A/B
ASNA 4049	Araldite® 2011
ASNA 4072	Araldite® 252-1
ASNA 4125	Araldite® 420 A/B
DAN 1187-01	Araldite® AW 134 / HY 994
DAN 1199-01	Araldite® AW 134 / HY 994
DAN 1284-01	Araldite® 2011
I+D-N-200 - Z15.213/1	Araldite® 420 A/B
I+D-N-200 - Z18.115/2	Epocast® 89537 A/B

Airbus / Coasa

RP1021209

Airbus Helicopters

ECS 0049

Epocast® 52 A/B

Epocast® 1627-2

Alenia Aermacchi

MDL08055

Epocast® 1617 A/B

MDL8027, Type 7

CG 1305 R/H Epocast® 89537 A/B

Allied Signal

PCS 5606

Epocast® 1652 A/B

Army

13312291

Uralane® 5774 A/C

Astrium

MPS0059

Araldite® 403 A/B

B/E Aerospace

LCMS 202, Type 1

Uralane® 5774 A/C

Bell Helicopter

299-947-097, Type 5

Epocast® 1626 A/B

Boeing	
901-330-140-107	Epocast® 1614-A1-11/CSI
BMS 5-25, Type 2, Gr 1	Epibond® 1539 A/B-10
BMS 5-28, Type 1	Epocast® 167 A/B
BMS 5-28, Type 3	Epocast® 1511 A/B
BMS 5-28, Type 4	Epocast® 1488 A/B
BMS 5-28, Type 6	Epocast® 1636 A/B
BMS 5-28, Type 7, Class 1	CG 1305 A/B
BMS 5-28, Type 7, Class 2	Epocast® 89537 A/B
BMS 5-28, Type 9	Epocast® 1629 A/B
BMS 5-28, Type 10	Epocast® 1610-A1
BMS 5-28, Type 12, Class 1	Epocast® 938-A2
BMS 5-28, Type 12, Class 2	Epocast® 938-A2
BMS 5-28, Type 13	Epocast® 938-A2
BMS 5-28, Type 14, Class 1	Epocast® 1614-A1
BMS 5-28, Type 14, Class 2	Epocast® 1614-A1
BMS 5-28, Type 15	Epocast® 1615 A/B
BMS 5-28, Type 17	Epocast® 1617 A/B
BMS 5-28, Type 18	Epocast® 1648 A/B
BMS 5-28, Type 18, Class 1	Epocast® 1618 D/B
BMS 5-28, Type 18, Class 2	Epocast® 1633 A/B
	Epocast® 1633-A40/B
	Epocast® 1633-A41/B
	Epocast® 1633-A50/B
BMS 5-28, Type 19	Epocast® 1619 A/B
BMS 5-28, Type 25	Epocast® 1625 A1/B1
BMS 5-28, Type 26, Class 1	Epocast® 1626 A/B

BMS 5-28, Type 26, Class 2	Epocast® 1626 C1/D2
BMS 5-28, Type 27	Epocast® 1627-2
BMS 5-28, Type 28	Epocast® 1628 A/B
BMS 5-28, Type 31	Epocast® 1635 A/B
BMS 5-105, Type 3	Uralane® 5759 G/D
BMS 5-105, Type 5	Uralane® 5774 A/C
BMS 5-105, Type 6	Uralane® 5779 A/B
	Uralane® 5779 A-80/B
BMS 5-107, Class 1	Epibond [®] 420 A/B
	Araldite® 420 A/B
BMS 5-123, Type 1, Class 3	Epibond® 8543 C/B
BMS 5-126, Type 2, Class 1, Gr B	Epibond® 1534 A/B
BMS 5-126, Type 3, Class 1, Gr B	Epibond® 1536 A/B
BMS 5-126, Type 4, Class 1, Gr B	Epibond® 1544 A/C
BMS 5-126, Type 4, Class 4, Gr B	Epibond® 1544-1 A-82/D
	Epibond [®] 1544 A-71/D
BMS 5-126, Type 6, Class 1, Gr B	Epibond® 1539 A/B
BMS 5-164, Type 1	Agomet® F307
BMS 8-201, Type 3	Epocast® 50 A1/9816
BMS 8-201, Type 4	Epocast® 50 A1/946
Boeing / MESA HS5933 (A) 100-25	Epocast® 1614-A1-67/CSI
Boeing / MESA HS5933 (A) 150-25	Epocast® 1614-A1-66/CSI
Boeing / MESA HS5933 (A) 150-35	Epocast® 1614-A1-65/CSI
Boeing / MESA HS5933 (A) 150-50	Epocast® 1614-A1-68
Boeing / MESA HS5933 (A) 150-100	Epocast® 1614-A1-64/CSI
D800-10411-1, PDD 6-1	Epibond® 1565 A/B
HMS 16-1068, Class 8B	Epibond® 1217 A/B
MMS 347, Type 2, Rev G, ADD 1	Epocast® 1614-A1
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BOMS 820-001, Type 2	Epibond® 8000 FR A/B
SMS 41, Type 3	Epocast® 1617 A/B

Cessna

CMNP085

Epocast® 1652 A/B

Cirrus

E00000061, Type 1, Form B

Epibond® 100 A/C

Dassault Aviation

DGQT 1.7.0.22

Araldite® 2011

Douglas

HMS 16-1115, Type 3, SUPP 1

Araldite® 501 A/B

Embraer	
Embraer/Kawasaki 190-38790-903	Epocast® 1614-A1-61/CSI
MEP 09-022	Araldite® AV 138M-1 / HV 998-1
MEP 10-051, Type 2, Class 1	Epocast® 1652 A/B
MEP 22-011	Epocast® 50 A1/946
	Epocast® 50 A1/9816

FACC

FMS 4140

Araldite® 2013

Fairchild Dornier

DON 816

Araldite® 2026

Fokker

TH5.558/1	Araldite® 2011
	Araldite® AW 2101 / HW 2951
TH5.558/6	Araldite® 2011
TH5.937	Araldite® 2013-1

Gamesa Aeronautica

GMS 124047	Epocast® 1617 A/B
GMS 124050	Epibond® 1544 A-82/D

GE

EMPIS A15 B205 (GE A15B205D1)	Epocast® 1614-A2
EMPIS A15 B218 A1	Epocast® 1645 A/B

Goodrich

RMS 027, Type XV, SCO 036

Epocast® 927-1 GB

Gulfstream

GAA 100BN1	Uralane® 5774 A/C
GMS 4005, Type 1, Class B, FM 1	Epocast® 1652 A/B
GMS 4005, Type 1, Class C, FM 2	Epocast® 1636 A/B

Hamilton-Sundstrand

CM34.40-38-01

Epibond® 1210 A/B

Hawker de Havilland

DHMS P1.30 Grade 2	Epocast® 8623-A / 9861	
DHMS P1.30 Grade 2A	Epocast® 8623-A / 946	
EN-106G309	Epocast® 1614-A1	

Heath Tecna

HMS A4-001, Type 1, Class 2	Uralane® 5774 A/C
HMS A4-001, Type 1, Class 3	Uralane® 5779 A/B
HMS A5-001, Type 1, Class 1	Epibond® 8000 FR A/B
HMS A5-001, Type 2, Class 3	Epibond® 1559-1 A/B

Hexcel

RMS 8955, C	Araldite [®] 403 A/B
RMS 8957, E	Araldite® 420 A/B

Hurel-Hispano

HS/DFO-010

Epocast® 1652 A/B

Kaman Composite

CMS-007-3	Epocast® 1636 A/B
CMS-007-4	Epocast® 1617 A/B

Kearfott

Y105A053-101

Epibond® 1217 A/B

Lockheed Martin

LAC 30-4639-0100	Epibond® 1210 A/9615 A
LAC 30-4639-0200	Epibond [®] 1210 A/9861
LAC 30-4639-0300	Epibond® 1210 A/9615-10
STM M1067, Type 1	Epocast® 1614-A1
STM M1067, Type 2	Epocast® 1614-A1
STM M1069	Epocast® 89537 A/B

Loral

23-P12027-0003

Epibond® 1210 A/9861

MBDA

PS 1690	Araldite® AY 105-1
PS 1691	Hardener HY 953 F
PS 1727	Hardener HV 953 U
PS 1728	Araldite® 2011
PS 1729	Araldite® AW 106

MD Helicopters

MDM16-1068, Class 8B	Epibond® 1217 A/B
MDM16-1115, Type 3	Araldite® 501 A/B

Meggitt Composites

MS 0013

Araldite® 420 A/B

Mitsubishi

M1074, Type 1	Epocast® 167 A/B
M1074, Type 2	Epocast® 1629 A/B
M1129, Class A	Epocast® 169 A-1/9615

NORDAM

NTR-MS 1301, Type 2, Class 4, Gr F

Epocast® 1614-A1
Epocast® 1614-A2

Northrop Grumman

Epocast® 1614-A2
Uralane® 5774 A/C
Epocast® 1652 A/B
Epocast® 1656 A/B
Epocast® 938-A2
Epocast® 1670 A/B

Piaggio Aerospace

NP190112, Type 17

Epocast® 1617 A/B

Pratt & Whitney

CPW 505	Epocast® 1656 A/B
PWA 452	Epocast® 1614-A1
PWA 36757	Epocast® 1661
TS10430	Epibond® 1534 A/B

ROHR

RMS 027, Type 5, Class 3, SCO 036	Epocast® 1617 A/B
RMS 027, Type 13, SCO 036	Epocast® 938-A2

Rolls Royce

MSRR 1076	Araldite® 1641 A/B
MSRR 9332	Araldite® AV 138M-1 / HV 998-1

Roxel

204 251-PS/1/E000	XD 4236-3
MTA 00137	Araldite® 2011

SAE Aerospace (CACRC)

AMS 2980

Epocast® 52 A/B

Sikorsky

SS-9440, (-001A)	Epocast® 169 A-1/946
SS-9587, (-002A & -005A) Type 1	Epocast® 169 A-1/9615
SS-9587, (-003A) Type 2, Class 1	Epocast® 1652 A/B
SS-9587, (-008A) Type 3, Class 1	Epocast® 1614-A1

Spectrolab

44418

Epibond® 1210 A/9861

Spirit Aero System

SMS-116201, Type 1	CG 1305 A/B
SMS-116201, Type 2	Epocast® 938-A2
SMS-116201, Type 3	Epocast® 1626 C1/D2

Sundstrand

CM 34.40-38-01

Epibond® 1210 A/B

Triumph Composite

TCE-M-20710-4, Type 1	Epibond® 420 A/B
TCE-M-20710-6, Type 1	Epocast® 1628 A/B

United Launch Alliance (ULA)

STM M1067, Type 1 & Type 2

Epocast® 1614-A1

US Navy

5675396	Uralane® 5776 A/B
NWC 78A151	Uralane® 5774 A/C
WS 9087	Uralane® 5776 A/B

Vought

207-8-417	Epocast® 1614-A1
901-031-442-101U	Epocast® 1614-A1-7/CSI
901-031-442-103U	Epocast® 1614-A1-8/CSI
901-031-442-105U	Epocast® 1614-A1-9/CSI
901-031-442-111U	Epocast® 1614-A1-59/CSI
901-031-442-113U	Epocast® 1614-A1-62/CSI
901-031-442-115U	Epocast® 1614-A1-63/CSI
VM 4006, Type 1, Class D, FM1	Epocast® 1656 A/B
VM 4006, Type 3, Class B, FM1	Epocast® 938-A2

Westland Helicopters

WHPS 012	Araldite® AY 103-1 / HY 951
WHPS 418	Araldite® AY 105-1 / HY 953F

We value your challenge



With innovation

Every day, all over the world, our scientists engage in intensive research and development focusing on one goal: to deliver innovative solutions by working hand-in-hand with our business partners. Together, through a continual exchange of ideas, supported by an experienced team of sales and technical specialists, we strive to deliver innovative and regulatory compliant solutions.

We track both new market expectations and changing regulations. Protection of the environment, as well as health and safety are paramount concerns, playing an integral part in our development projects.

With customer understanding

We market a unique product portfolio and a broad range of forward-looking solutions for our customers. Customers and partners benefit from an advanced level of service in:

- > product selection and quality
- > product trials in-house and with customers
- > customer seminars and training
- > technical support

Partnership with our customers is more than simply 'putting them first'. It requires long-term commitment to forging close relationships that create synergies of knowledge, security and adaptability to create a successful, shared future.

With care

Sustainability is a fundamental part of our corporate and business strategy. We see a better world in which our innovations help reduce consumption of natural resources and improve the quality of life for people everywhere.

We are identifying long-term trends that affect our markets, and are looking to see how our products and applications can play a part in providing solutions to the challenges those markets face.

Huntsman provides unique, high-quality and reliable technologies to ensure our customers' success



Huntsman Advanced Materials

Our Advanced Materials division is a leading global chemical solutions provider with a long heritage of pioneering technologically advanced epoxy, acrylic, phenolic and polyurethane-based polymer products.

Our capabilities in high-performance adhesives and composites, delivered by more than 1600 associates, serve over 2000 global customers with innovative, tailor-made solutions and more than 1500 products which address global engineering challenges.

We operate synthesis, formulating and production facilities around the world



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The Product may be or become hazardous. Buyer should (i) obtain Material Safety Data Sheets and Technical Data Sheets from Huntsman containing detailed information on Product hazards and toxicity, together with proper shipping, handling and storage procedures for the Product, (ii) take all steps necessary to adequately inform, warn and familiarize its employees, agents, direct and in direct customers and contractors who may handle or be exposed to the Product of all hazards pertaining to and proper procedures for safe handling, use, storage, transportation and disposal of and exposure to the Product and (iii) comply with and ensure that its employees, agents, direct and indirect customers and contractors who may handle or be exposed to the Product comply with all safety information contained in the applicable Material Safety Data Sheets, Technical Data Sheets or other instructions provided by Huntsman and all applicable laws, regulations and standards relating to the handling, use, storage, distribution and disposal of and exposure to the Product. Please note that products may differ from country to country. If you have any queries, kindly contact your local Huntsman

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