

# HIGHER PERFORMANCE AND PRODUCTIVITY LOWER MAINTENANCE COSTS

Aerospace materials for production,  
assembly, and maintenance

From increasing throughput to reducing aircraft weight, our void fillers, adhesives, and composite material solutions enable you to operate a more sustainable and successful business.

# SOLVING AEROSPACE CHALLENGES FOR MORE THAN 70 YEARS

**Araldite®**  
**Epibond®**  
**Epocast®**  
**Uralane®**

Now more than ever, the aerospace industry is under pressure to reduce production times and costs. As a result, manufacturers and operators must find new ways to minimize expenses and maximize productivity.

At Huntsman Advanced Materials, we make things possible. Whether it is helping to realize innovative new designs, reduce weight for greater fuel efficiency, optimize production and maintenance, improve throughput, or more, our specialty material solutions will enable you to achieve your ambitions and drive sustainable growth.

For over 70 years, our adhesives, composites, and void fillers have been the products of choice for aerospace businesses like yours to help solve engineering challenges. Our unparalleled insight into the aerospace industry and processes means we know what you need to deliver performance, efficiency, and reliability, while consistently meeting global standards.

We also understand the need to run a more environmentally friendly operation, which is why we are constantly developing new technologies that can help to meet your organization's sustainability goals. Coupled with our global support network that delivers assurance and availability you can always rely on, you get a specialist partner ready to support your success today and far into the future.



### Reduced cycle time

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



### Lightweight design

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



### 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.



### 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 concentration.



### Flame retardancy

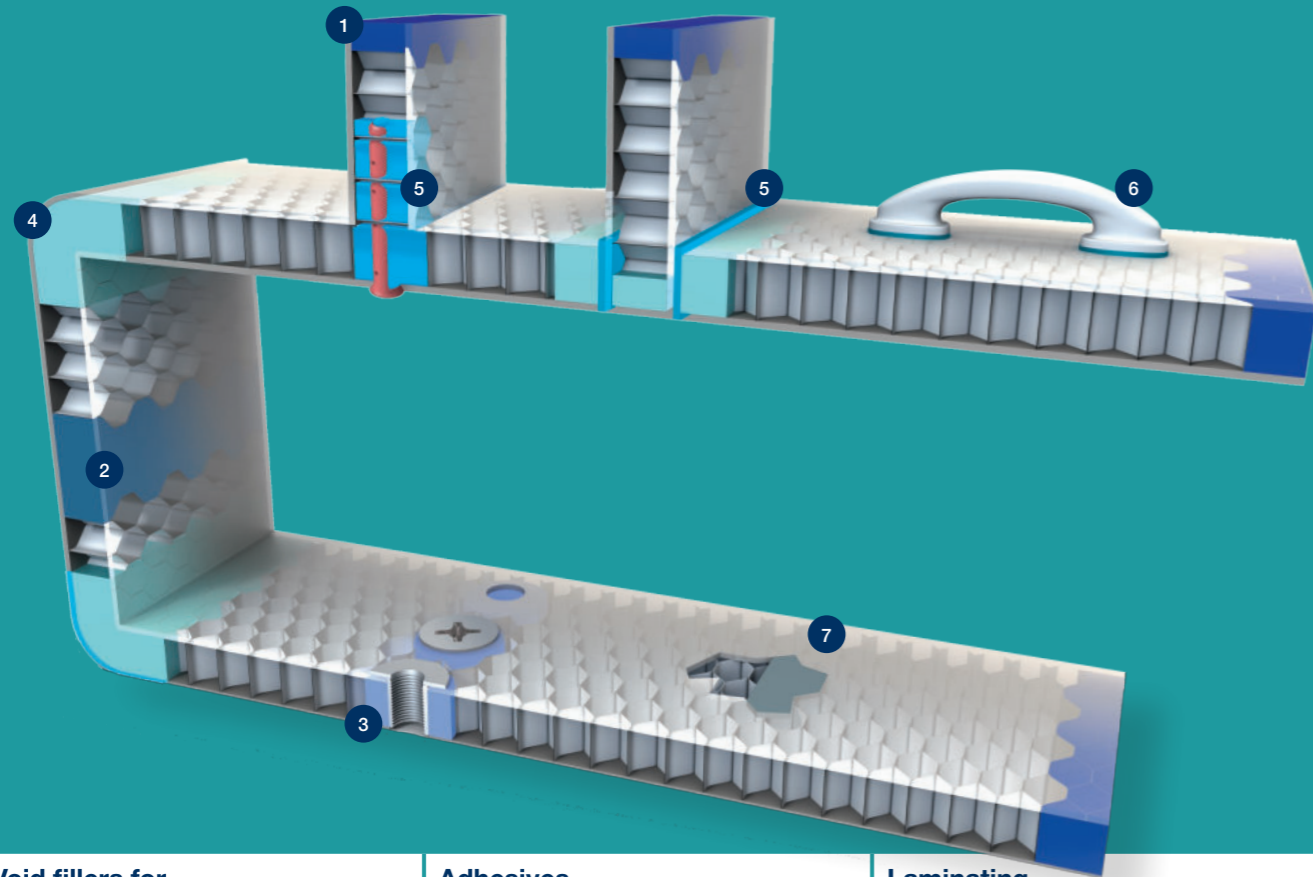
Many of our products are flame retardant and exhibit the low flame, smoke, and toxicity characteristics required to comply with established regulations governing materials used in civil and commercial aircraft.



### 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.

# OPTIMIZE YOUR PRODUCTION, REPAIR, AND ASSEMBLY PROCESSES



Void fillers for core reinforcement and insert potting	Adhesives for joining and bonding	Laminating resins for composite production and repair
<ul style="list-style-type: none"> <li>1. Edge fill and close out</li> <li>2. Panel reinforcement</li> <li>3. Insert potting</li> <li>4. Panel forming</li> </ul>	<ul style="list-style-type: none"> <li>5. Panel pin bonding</li> <li>6. Component bonding</li> </ul>	<ul style="list-style-type: none"> <li>7. Manufacturing and repair</li> </ul>

For decades, the global aerospace industry has relied upon our structural adhesives, under the leading brands ARALDITE® and EPIBOND® adhesives and EPOCAST® edge and void fillers for fabrication, assembly, and repair.

Our high-performance ARALDITE® resins and ARADUR® hardeners used in composites are designed to realize lighter weight designs, leading to lower fuel consumption, and reduce maintenance costs, while increasing design flexibility and production efficiency.

As the world's largest manufacturer supplying aerospace-qualified resin systems, our solutions meet over 250 OEM specifications. Engineered to the highest and most demanding industry standards, each gives you the assurance you need to cover key performance characteristics, including strength, weight, toughness, flexibility, low coefficient of thermal expansion, high resistance to corrosion and fatigue, flame retardancy, halogen-free formulations, and noise and vibration damping.

## 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 product tables to determine which products are best suited for your particular applications.

Additionally, our material modeling and simulation capabilities speed up design and lower risk when qualifying adhesives for your project.

**Need technical help or a distributor?  
Submit your questions to our team at:**

[www.huntsman.com/contact/advanced-materials](http://www.huntsman.com/contact/advanced-materials)



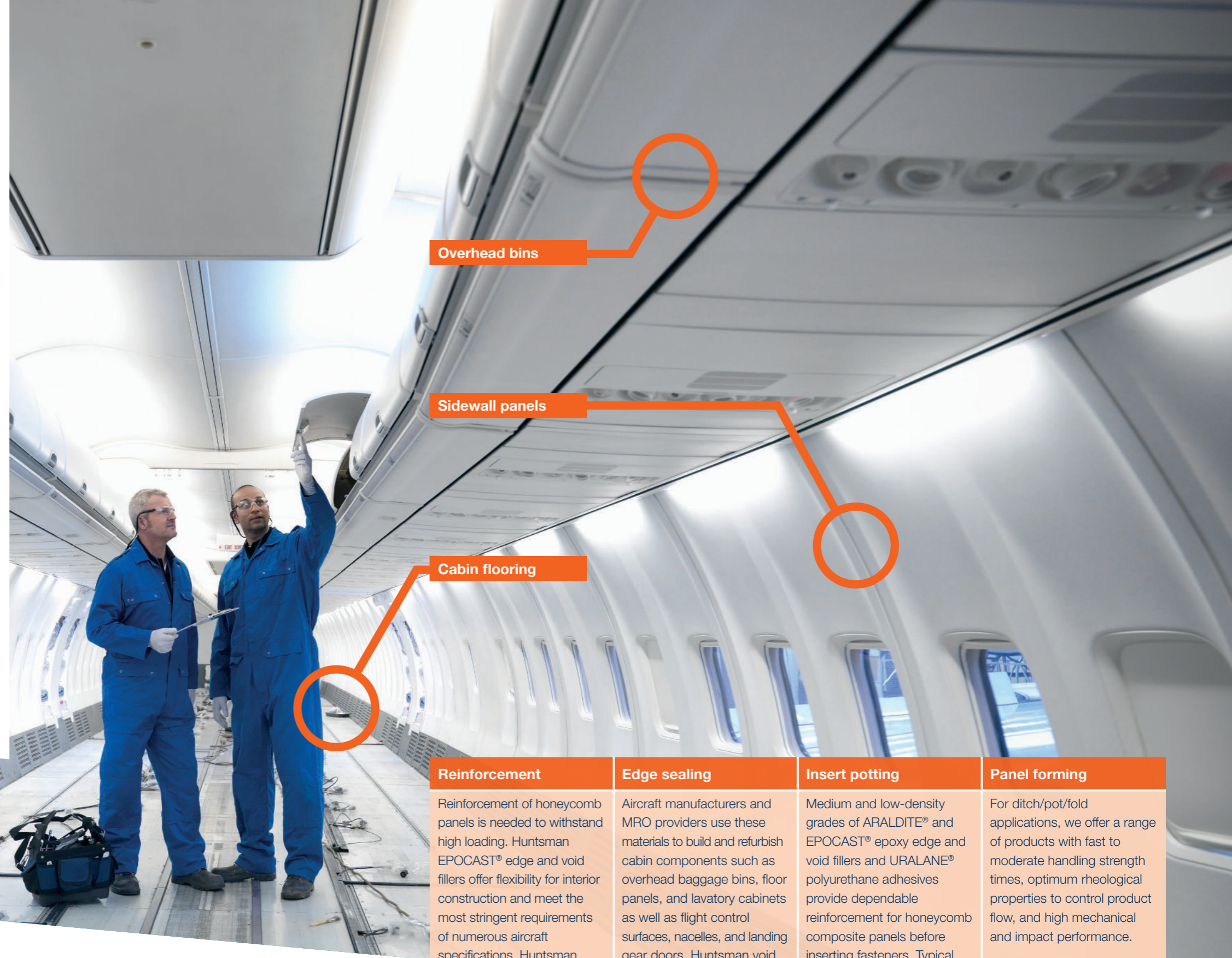
# ↑75%

Our adhesives allow weight reduction by up to 75% when compared to mechanical fasteners.

# EDGE AND VOID FILLERS FOR CORE REINFORCEMENT AND INSERT POTTING

ARALDITE® and EPOCAST® epoxy edge and void fillers provide you with the ideal solution 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 many Structural Repair Manuals and Service Bulletins. Known for their outstanding performance, our products are found in a wide variety of aircraft parts today, from nacelles, engines, rudders, and radomes, to overhead bins, cabin doors, interior panels, and cabin flooring.



Overhead bins

Sidewall panels

Cabin flooring

↑ **50%** Increase productivity by up to 50%

↑ **40%** Up to 40% better compressive strength

↑ **40%** Improve off-ratio mix tolerances by up to 40%

Reinforcement	Edge sealing	Insert potting	Panel forming
Reinforcement of honeycomb panels is needed to withstand high loading. Huntsman EPOCAST® edge and void fillers offer flexibility for interior construction and meet the most stringent requirements of numerous aircraft specifications. Huntsman also offers a unique range of 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.	Aircraft manufacturers and MRO providers use these materials to build and refurbish cabin components such 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 self-extinguishing and feature easy-to-apply viscosities, as well as sag-resistance for use on vertical surfaces.	Medium and low-density grades of ARALDITE® and EPOCAST® epoxy edge and void fillers and URALANE® polyurethane adhesives provide dependable reinforcement for honeycomb composite panels before inserting fasteners. Typical applications include composite floor panels, galley walls, bulkheads, and lavatory cabinets.	For ditch/pot/fold applications, we offer a range of products with fast to moderate handling strength times, optimum rheological properties to control product flow, and high mechanical and impact performance.

**EDGE AND VOID FILLERS**

	Product	Mix ratio	Consistency	Gel time	Suggested cure schedule	Max service temperature	Compressive strength	Density	Color	Flame retardant	Packaging					OEM specifications
	Conditions		23°C	23°C			23°C				Cartridges	Kits	Semkits®	Bulk	Patties	
	Units	pbw		min	°C	°C	MPa									
Two-component ↑ Low density ↓ High density	EPOCAST® 1645 FR A/B	100 : 100	Paste	65 (100 g)	1 - 3 days at 23°C or gel at 23°C + 1 - 3 h at 50°C	175	20	0.48	Brown	•	•					GE EMPIS A15 B218 A1 / BMS 5-28 Type 9
	ARALDITE® 1641 A/B	100 : 30.5	Soft paste	Work life: 180 (50 g)	1 day at 23°C + 2 h at 100°C	Typical service temperature: 90°C	15	0.50	Pale blue				•	•		Rolls-Royce MSRR 1076
	ARALDITE® 1644 A/B	100 : 20	Paste	Work life: 35 (200 g)	1 - 1,5 days at 23°C or 3 - 4 h at 23°C + 2 h at 60 - 80°C	Typical service temperature: 80°C	30	0.55	Pale green					•		Airbus AIMS 10-03-001-02
	ARALDITE® 252-1 A/B	100 : 30	Paste	120 - 300	7 days at 23°C or 2 h at 70°C	Typical service temperature: 80°C	45	0.75	Blue or white	•	•			•		Airbus ASNA 4072 ind.B / Airbus AIMS 10-03-005
	EPOCAST® 1648 A/B	100 : 20	Paste	18 (60 g)	3 days at 23°C or gel at 23°C + 5 h at 50°C	-	50	0.70	Off-white	•	•	•				Boeing BMS 5-28, Type 18 Class 1
	EPOCAST® 1649-1 A/B	100 : 50	Paste	10	3 days at 23°C or 3 h at 50°C	-	40	0.70	Light blue	•	•					Huntsman standard certification
	EPOCAST® 1617 A/B	100 : 20	Paste	60 - 90 (60 g)	7 days at 23°C or 5 h at 50°C	-	40	0.70	Off-white	•	•					Boeing BMS 5-28, Type 17 / Rohr RMS 027, Type 5, Class 3, SCO 036 / Bombardier SMS 41, Type 3 / Alenia MDL08055 / Gamesa GMS 124047 / Kaman CMS-007-4 / Piaggio NP190112, Type 17
	EPOCAST® 1618 D/B	100 : 14	Paste	15 (55 g)	7 days at 23°C or 5 h at 50°C	-	40	0.70	Off-white	•	•	•				Boeing BMS 5-28, Type 18, Class 1
	EPOCAST® 1619 A/B	100 : 25	Semi-paste	20 - 50 (60 g)	7 days at 23°C or 5 h at 50°C	-	40	0.70	Off-white	•	•	•				Boeing BMS 5-28, Type 19
	EPOCAST® 1652 A/B	100 : 12	Paste	30 - 60 (100 g)	7 days at 23°C or 2 - 3 h at 65°C	175	55	0.80	Light tan			•	•			Grumman GM 4006, Type 1, Class B, FM 1 / Sikorsky SS-9587, (-003A) Type 2, Class 1 / Embraer MEP 10-051, Type 2, Class 1 / Gulfstream GMS 4005, Type 1, Class B, FM 1 / Allied Signal PCS 5606 / Hurel-Hispano HS/DFO-010
	EPOCAST® 89537 A/B	100 : 18.5	Pourable	70 (60 g)	7 days at 23°C or 1 h at 175°C	175	60	0.90	Grey	•	•					Airbus I-D-N-200 - Z18.115-2 / Boeing BMS 5-28, Type 7, Class 2 / Lockheed Martin STM M1069 / Alenia MDL8027, Type 7
	CG 1305 A/B	100 : 20	Pourable	> 60 (60 g)	7 days at 23°C or 1 h at 175°C	175	62	0.90	Off-white	•	•	•				Boeing BMS 5-28, Type 7, Class 3 / Alenia MDL8027, Type 7 / Spirit SMS-116201, Type 1
	EPOCAST® 1636 A/B	100 : 8	Pourable	120 (55 g)	7 days at 23°C or 1 h at 175°C	-	100	1.72	Grey	•	•					Boeing BMS 5-28, Type 6 / Gulfstream GMS 4005, Type 1, Class C, FM 2 / Kaman CMS-007-3
EPOCAST® 1635 A/B	100 : 23	Soft paste	> 60 (60 g)	7 days at 23°C or 2.5 h at 95°C	175	100	1.80	Blue-Grey		•	•				Boeing BMS 5-28, Type 31	
One-component ↑ Low density ↓ High density	EPOCAST® 1614-A2	Premixed	Extrudable paste	Work life: 24h	1 h at 175°C or 1.5 h at 120°C	175	125	< 0.75	Reddish-brown	•	•				•	GE EMPIS A15 B205 (GE A15B205D1) / Grumman ACS-MRS-5601
	EPOCAST® 938-A2	Premixed	Extrudable paste	18h after thaw (100 g)	1 h at 175°C or 1.5 h at 120°C	175	150	< 1.4	Yellow	•	•					Boeing BMS 5-28, Type 12, Class 1 & 2 / Boeing BMS 5-28, Type 13 / Vought VM 4006, Type 3, Class B, FM 1, AM 2 / Grumman GM 4006, Type 3, Class B, FM1
	EPOCAST® 927-1	Premixed	Extrudable paste	Work life: 24h after thaw	1 h at 175°C or 1.5 h at 120°C	175	125	1.15	Off-white		•					Goodrich RMS 027, Type XV, SCO 036
	EPOCAST® 1627-2	Premixed	Extrudable paste	24h after thaw	1 h at 175°C	175	200	1.80	Grey		•				•	Boeing BMS 5-28, Type 27 / Airbus Coasa RP1021209

# TRUSTED ADHESIVES FOR JOINING AND BONDING

Our high-performance ARALDITE®, EPIBOND®, and URALANE® adhesives provide superior joining and bonding solutions for plastics, metals, composite materials, and other substrates. Huntsman adhesives are proven to offer manufacturing process improvements and reductions in weight over other fastening methods.

Additionally, manufacturers can select adhesives resistant to fatigue, chemicals, and high 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 surfaces.

↑ **80%** Increase throughput by up to 80%

↑ **75%** Reduce weight compared to mechanical fasteners by up to 75%

↑ **150%** Improve mechanical strength by up to 150%



Ceiling panels

Lavatories

Seats

Epoxy adhesives	Polyurethane adhesives (PU)	Acrylic adhesives
<ul style="list-style-type: none"> <li>• Excellent adhesion to metals and thermoset composites</li> <li>• High strength and high stiffness</li> <li>• High fatigue resistance</li> <li>• High temperature resistance</li> <li>• Excellent chemical resistance and long-term durability</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent adhesion to most composite materials and plastics</li> <li>• Good adhesion to metals</li> <li>• Mechanical properties from rigid to flexible</li> <li>• High fatigue resistance</li> <li>• Good long-term durability</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent adhesion to metals, thermoset composites, and most thermoplastics</li> <li>• Good adhesion with minimum surface preparation</li> <li>• Tolerant to mix-ratio variations</li> <li>• Wide spectrum of available reactivity</li> <li>• Optimum ratio open-time / cure time</li> <li>• Mechanical properties from rigid to flexible</li> <li>• Good long-term durability</li> </ul>

ADHESIVES

Product	Mix ratio	Mixed viscosity	Gel time	Pot life conditions for measure	Suggested cure schedule	Max service temperature	Lap shear strength A1/A1		T-peel	Color	Flame retardant	Packaging				OEM specifications
							23°C	80°C				Cartridges	Kits	Bulk	Cans	
							°C	MPa								
EPIBOND® 315	100 : 67	Paste	45		3 - 5 days at 23°C or 1 h at 65°C	205	30	8 at 205°C	3	Grey		•	•			Huntsman standard certification
ARALDITE® AV 138M-1 / HV 998-1	100 : 40	Paste	-	30	48 h at 23°C or 16 h at 40°C	160	15	16	-	Grey				•	•	Embraer MEP 09-022 / Rolls Royce MSRR 9332 / Dassault Aviation DGQT 1.7.0.0022
EPIBOND® 100 A/C	100 : 44	Thixotropic paste	> 180 (150 g)	-	1 h at 65°C + 3 - 5 h at 95°C	150	30	25	4	Off-white		•				Cirrus E00000061, Type 1, Form B
EPIBOND® 215	100 : 45	Non-sag paste	100	30	1 h at 65°C or 4 - 5 days at 23°C	149	34.5	24.1 at 82°C	10	Off-white			•		•	Huntsman standard certification
ARALDITE® AW 4859 / HW 4859	100 : 43	Paste	-	100 - 120	3 h at 80°C or 1 h at 130°C	140	32	20	1 - 3 (roller peel)	Black		•		•		Huntsman standard certification
ARALDITE® 501 A/B	100 : 15	1.4 - 3.5	50 - 150 (138 g)	-	7 days at 23°C or 2 h at 70°C	120	14	16	5 (roller peel)	Blue			•			Airbus AIMS 10-04-024
ARALDITE® 1570 FST A/B	100 : 88	Paste	-	140	48 h at 23°C or 1.5 h at 90°C	100	18	6	-	Dark grey	•	•				AIMS 10-04-006
ARALDITE® 2015	100 : 100	Paste	-	30 - 40	48 h at 23°C	100	17	12	4 (roller peel)	Beige		•	•	•		Huntsman standard certification
ARALDITE® 2015-1	100 : 100	Paste	-	45 - 55	48 h at 23°C	100	20	12	-	Beige		•	•	•		Huntsman standard certification
EPIBOND® 156-1 A/B	100 : 9.5	Soft paste	20 - 50	-	3 days at 23°C or 1 - 3 h at 65°C	95	18	17	-	Off-white			•			Huntsman standard certification
EPIBOND® 200	100 : 100	Paste	100	-	3 - 5 days at 23°C or 2 h at 65°C	95	22	7 at 95°C	5 (roller peel)	Grey		•	•			Huntsman standard certification
EPIBOND® 1210 A/B	100 : 65	Semi-paste	-	50 - 75	48 h at 23°C or 2 h at 65°C	93	17	3 (steel)	-	Tan			•			Sundstrand CM 34.40-38-01
ARALDITE® 2011	100 : 80	30 - 45	-	100	24 h at 23°C	90	25	7	5 (roller peel)	Pale yellow		•	•	•		Airbus AIMS 10-04-020 / Dassault DGQT 1.7.0.0022 / Aerospace Composite Technologies M1368 - 001 / Roxel MTA 00137
EPIBOND® 8000 FR A/B	100 : 48	180	65 - 70	-	5 - 7 days at 23°C or 1.5 h at 55°C	80	27	9	4 (roller peel)	Off-white	•	•				Bombardier BOMS 820-001, Type 2 / Heath Tecna HMS A5-001, Type 1, Class 1
ARALDITE® 2013-1	100 : 60	Paste	-	80 - 90	24 h at 23°C or 16 h at 40°C	70	18	4	-	Grey		•	•	•		GKN Fokker TH5.937
ARALDITE® 420 A/B	100 : 40	35 - 45	-	60	48 h at 23°C	65	35	4	-	Dark green		•	•	•		Airbus I+D-N-200 - Z15.213/1 / Boeing BMS 5-107, Class 1 / Meggitt Composites MS 0013
PU	URALANE® 5774 A/C	100 : 55	Semi-paste	15 - 25	-	7 days at 23°C or 1 - 2 h at 95°C	85	15	9	6	Beige	•	•	•		Boeing BMS 5-105, Type 5 / Heath Tecna HMS A4-001, Type 1, Class 2 / US Navy NWC78A151 / Gulfstream GAA 100BN1 / Army 13312291
	URALANE® 5779 A/B	100 : 98	Non-sag paste	8 - 15	-	7 days at 23°C or 4 h at 65°C	82	8	-	2	White		•			Boeing BMS 5-105, Type 6I / Heath Tecna HMS A4-001, Type 1, Class 3
Acrylic	ARALDITE® 2021-1	100 : 100	Paste	-	3	1 h at 23°C	100	25	12	-	Pale yellow		•		•	Huntsman standard certification
	ARALDITE® 2022-1	100 : 100	Paste	-	10	1.5 h at 23°C	100	25	12	-	Pale yellow		•		•	Huntsman standard certification

# COMPOSITE SYSTEMS FOR PRODUCTION AND REPAIR

For decades, Huntsman composite systems have been the industry standard for the manufacturing and repair of many different aircraft parts, including radomes, fairings, flight control surfaces, cargo and cabin panels, and more.

Our composite systems combine ease of handling with excellent mechanical strength to perform in the most demanding applications and environments. Many are also flame retardant and can be used to wet out fiberglass, carbon fiber, and honeycomb core reinforcements.



**ARALDITE® and EPOCAST® composite systems are well-known to provide outstanding mechanical performance for manufacturing, Maintenance, Repair and Overhaul (MRO).**

Composite solutions for production	Structural FST solutions for interiors	Laminating resins for repair
<ul style="list-style-type: none"> <li>• Designed for customer-specific applications</li> <li>• Compatible with state-of-the-art manufacturing processes like infusion, RTM, VARTM and compression molding</li> </ul>	<ul style="list-style-type: none"> <li>• Meet Flame, Smoke and Toxicity (FST) according to FAR 25.853 / ABD 0031</li> <li>• Halogen-free</li> <li>• Unfilled</li> <li>• Good mechanical properties</li> <li>• Designed for a variety of processes including RTM and infusion</li> </ul>	<ul style="list-style-type: none"> <li>• Designed for composite repair</li> <li>• OEM-qualified</li> <li>• Good fiber wetting</li> <li>• Low temperature vacuum-bag curing capabilities</li> <li>• Good hot-wet strength</li> <li>• Good resistance to aircraft fluids</li> <li>• Good mechanical properties</li> </ul>



## COMPOSITE SYSTEMS FOR REPAIR

Product	Mix ratio	Mixed viscosity	Gel time	Suggested cure schedule	Nominal service temperature	Compressive strength	Color	Flame retardant	Packaging		OEM specifications
Conditions		25°C	100g at 25°C			23°C			Kits	Bulk	
Units	pbw	cP	min	°C	°C	MPa					
EPOCAST® 35 A / 927	100 : 25	7 000	5	4 h at 82°C or 2 h at 121°C	< 148	420*	Amber		●		Boeing BMS B-214, Ty1
EPOCAST® 50-A1 / 946	100 : 15	2 400	20	5 days at 25°C or 2 h at 77 - 93°C	-	110*	Amber	●	●		Boeing BMS B-201, Ty4 / Embraer MEP 22-011
EPOCAST® 54 A/B	100 : 15	8 000	15 - 25	5 days at 25°C or 2 h at 66 - 93°C	.	338*	Light amber	●	●		Airbus IPS 04-27-001-01
EPOCAST® 52 A/B	100 : 40	5 500	60	3 h at 66°C or 2 h at 93°C	177	-	Blue		●		Airbus IPS 06-01-002-01 / Adarn Aircraft S-00-040-36, Ty1 / Eurocopter ECS 0049 Part 1 / SAE Aero AMS 2980
EPOCAST® 50-A1 / 9816	100 : 14	2 400	65	5 days at 25°C or 2 h at 77 - 93°C	-	125	Amber	●	●		Boeing BMS B-201, Ty3 / Embraer MEP 22-011
ARALDITE® 501 A/B	100 : 15	3 500	90 at 23°C	7 days at 25°C or 16 h at 45°C or 2 h at 70°C	82	-	Blue		●		Douglas HMS 16-1115 Ty3 / MD Helicopters MDM16-1115, Ty 3

\*12-ply laminate using 7781-type glass fabric

## COMPOSITE SYSTEMS FOR STRUCTURAL AND INTERIOR PARTS MANUFACTURING

Product	Short Description	Mix Ratio (by weight)	Mixed Viscosity RT (mPa.s)	Gel time 80°C (min)	Typical cure cycle	Typical Tg (°C)	Flexural Strength (MPa)	K <sub>1c</sub> (MPa.√m)	Strain / Elongation (%)
ARALDITE® 40002/40003	FAR 25.853 FST compliant and halogen-free solutions designed for structural interior applications. Fast curing capability (ca 5 min / 150°C).	100 : 25	600 - 800	40	1 h @ 100°C + 1 h @ 120°C + optional 2 h @ 180°C free-standing post-cure for large parts	260	135	0.9	5
ARALDITE® 40002/40006		100 : 25	450 - 550	40	5 min @ 150°C or 30 min @ 120°C + optional 2 h @ 180°C free-standing post-cure for small / medium parts	210	135	0.6	4
ARALDITE® 585	High Tg system with excellent hot / wet performance	1K	50 - 60 (100°C)	20 (180°C)	2 h @ 180°C	200	150	0.65	-
ARALDITE® LY 8615 / XB 5173	High Tg system with excellent processability	100 : 38	320	25	2 h @ 180°C	200	115	0.7	5
ARALDITE® 580	High Tg system with high impact resistance	1K	330 (80°C)	55 (180°C)	2 h @ 190°C	190	130	0.9	-
ARALDITE® LY 3508 / ARADUR® 22962	Toughened system with a good balance between productivity / processing	100 : 22	2 000	30	2 h @ 150°C	145	125	1.1	9
ARALDITE® LY 1564 / ARADUR® 2954	Versatile system with excellent processability	100 : 35	600	40	2 h @ 160°C	135	100	0.75	7
ARALDITE® 570 A/B	Medium Tg with outstanding mechanical performance	100 : 41	600	314 (@ 60°C)	2 h @ 120°C	130	130	1.1	7.5
ARALDITE® LY 3508 / ARADUR® 3475	Toughened system for mass production	100 : 20	1 200	7	1 min @ 140°C	120	70	1.5	9
ARALDITE® LY 5052 / ARADUR® 5052	Low viscosity Cold curing system	100 : 38	600	15	1 day 23°C + 15 h 50°C or 1 day 23°C + 4 h 100°C	120	135	0.8	6

# MATERIAL SPECIFICATIONS

The majority of our products are qualified to aircraft and engine manufacturer's specifications across platforms including fixed wing, rotorcraft, and spacecraft.

We are continuously striving to increase these approvals through on-going innovation and development.



Aerospace Composite Technologies	
M1368 - 001	ARALDITE® 2011

Airbus	
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
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
DAN 1187-01	ARALDITE® AW 134 / HY 994
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	EPOCAST® 1627-2

Airbus Helicopters	
ECS 0049	EPOCAST® 52 A/B

Alenia Aermacchi / Leonardo	
MDL08055	EPOCAST® 1617 A/B
MDL8027, Type 7	CG 1305 R/H
	EPOCAST® 89537 A/B

Allied Signal / Honeywell	
PCS 5606	EPOCAST® 1652 A/B

Army	
13312291	URALANE® 5774 A/C

Airbus Defense and Space	
MPS0059	ARALDITE® 403 A/B

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 2	EPOCAST® 89537 A/B
BMS 5-28 Type 7, Class 3	CG 1305 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
BMS 5-28, Type 19	EPOCAST® 1633-A50/B
	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

Bombardier	
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

Collins Aerospace	
LCMS 202, Type 1	URALANE® 5774 A/C
MS 3002, Rev 2	EPOCAST® 1649-1

Dassault Aviation	
DGQT 1.7.0.0022	ARALDITE® 2011
	ARALDITE® AV138M-1 / HV 988-1
	ARALDITE® AY103-1 / HY 991
	ARALDITE® AV121 N-1 / HY 951
	ARALDITE® AV123-1 / HV 953B
DGQT 1.4.2.35, Issue D	ARALDITE® AW106 / HV 953U
	ARALDITE® LY 5052 / HY 5052

Douglas / MD helicopters	
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 / HV998-1
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

GKN 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 / Boeing Aerostructures Australia	
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	
ACS-MRS-5601	EPOCAST® 1614-A2
GA 100BN	URALANE® 5774 A/C
GM 4006, Type 1, Class B, FM 1	EPOCAST® 1652 A/B
	EPOCAST® 1656 A/B
GM 4006, Type 3, Class B, FM1	EPOCAST® 938-A2
GR 110PF1	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 AeroSystems	
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 / Leonardo	
WHPS 012	ARALDITE® AY 103-1 / HY 951
WHPS 418	ARALDITE® AY 105-1 / HY 953F

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