

KEY MARKETS

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Turkey, UAE

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Japan, Korea, Taiwan

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Peru

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Egypt
Ethiopia
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Morocco
Nigeria
South Africa
Tunisia

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Bangladesh
India
Sri Lanka

SOUTH EAST ASIA
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Malaysia
Singapore
Thailand
Vietnam

OCEANIA
Australia
New Zealand



Epoxy systems for wind blades



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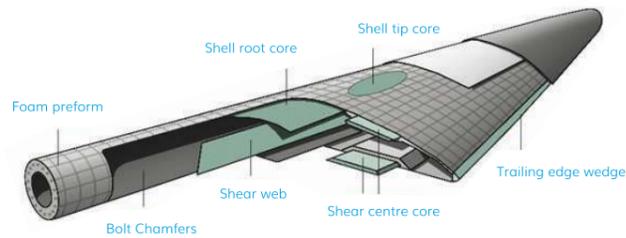
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energising possibilities
stimulating growth



Wind blade epoxy systems

Lapox systems	Mixing ratio (resin : curing agent)	Mix viscosity ¹ @ 25 °C	Pot Life ² @ 25 °C	Tg ³	Recommendations
	parts by weight	mPa s	minutes	°C	

Resin Infusion (RI)

Det Norske Veritas (DNV) certified					
ARL-125 AH-365	100 : 32	300 - 700	50 - 60	75 - 85	Preferred for small wind turbine blades and to increase reactivity of slow infusion systems.
ARL-125 AH-367	100 : 32	200 - 300	300 - 380	75 - 85	Designed for wind turbine blades and other large components.
Low viscosity					
ARL-135 LV AH-332	100 : 32	600 - 800	8 - 14	80 - 90	Variable pot life systems for desired cycle time. Suitable for small to large components.
ARL-135 LV AH-333	100 : 32	600 - 750	14 - 20	80 - 90	
ARL-135 LV AH-334	100 : 32	600 - 750	25 - 35	80 - 90	
ARL-135 LV AH-335	100 : 32	300 - 500	50 - 60	75 - 85	
ARL-135 LV AH-336	100 : 32	400 - 650	80 - 100	75 - 85	
ARL-135 LV AH-337	100 : 32	200 - 300	300 - 380	75 - 85	Suitable for small to large cured-in-place pipe (CIPP) application.

Hand lay-up (HLU)

DNV certified					
ARL-135 AH-334	100 : 32	700 - 1,200	25 - 35	80 - 90	Systems with variable pot life and viscosity for wind blades and repairs.
ARL-135 AH-365	100 : 32	300 - 700	50 - 60	70 - 80	
Low viscosity					
ARL-135 AH-332	100 : 32	700 - 1,200	8 - 14	80 - 90	Variable pot life systems for desired cycle time. Suitable for small to large components.
ARL-135 AH-333	100 : 32	700 - 1,200	14 - 20	80 - 90	
ARL-135 AH-335	100 : 32	500 - 700	50 - 60	75 - 85	
ARL-135 AH-336	100 : 32	500 - 700	80 - 100	75 - 85	
ARL-135 AH-337	100 : 32	300 - 500	300 - 380	75 - 85	

Structural adhesives

ARA-32 AH-733	100 : 45	300 - 400	55 - 65 @ 30 °C	80 - 90	Thixotropic structural adhesives with high lap shear strength suitable for blade shell bonding.
DNV certified					
ARA-32 AH-735	100 : 45	300 - 400	120 - 180 @ 30 °C	80 - 90	

¹Brookfield viscosity | ²Pot life of 100 g mix mass | ³Tg: Glass transition temperature | Mix viscosity - ASTM D2196; Pot life - ASTM D2471; Tg - ISO 11375-2

Tooling systems

Lapox systems	Mixing ratio (resin : curing agent)	Mix viscosity ¹ @ 25 °C	Pot Life ² @ 25 °C	Tg ³	Recommendations
	parts by weight	mPa s	minutes	°C	
Laminating systems					
ARL-138 AH-417	100 : 30	200 - 300	90 - 150	100 - 110	Offers excellent fibre wetting enabling high productivity.
L-552 K-552	100 : 38	600 - 700	110 - 160	115 - 130	Designed for static and dynamic applications including aerospace, tooling and aircraft repairs.
ARL-135 LV AH-411	100 : 24	250 - 400	90 - 120	125 - 135	Excellent chemical resistance and high thermal stability.
ARL-125 AH-339	100 : 30	400 - 600	120 - 150	130 - 140	Long pot life and good thermal stability. Suitable for making large tooling components for wind automotive industry.
ARL-138 AH-339	100 : 30	400 - 600	120 - 180	130 - 140	High Tg system for manufacturing tools of varying sizes by HLU and RI.
ART-17 AH-454	100 : 40	200 - 300	480 - 530	155 - 165	Extended pot life with high Tg for medium and large tools.
ARL-140 AH-419	100 : 42	2,500 - 3,000	600 - 700	190 - 220	Outstanding thermal performance. Designed for aerospace, defence and wind blade component tools.
Gel coats					
ART-21 AH-326 (T-73 K-51)	100 : 15	Paste	25 - 30	80 - 90	White coloured system providing resilient and machinable surface with good edge strength.
ART-22 AH-326 (T-94 K-51)	100 : 8	Paste	15 - 20	80 - 90	Grey coloured system providing excellent hardness and high thermal conductivity.
ART-23 AH-326 (T-96 K-51)	100 : 10	Paste	15 - 20	80 - 90	Blue coloured system providing abrasion resistance, extreme hardness and good surface finish.
ART-24 AH-326	100 : 15	Paste	15 - 30	95 - 115	Natural milky white tintable system providing machinable surface with high thermal stability.

Repair and maintenance systems

HLU systems					
DNV certified					
ARL-135 AH-334	100 : 32	700 - 1,200	25 - 35	80 - 90	Systems with variable pot life and viscosity for wind blades and repairs.
ARL-135 AH-365	100 : 32	300 - 700	50 - 60	70 - 80	
Medium viscosity					
ARL-135 AH-335	100 : 32	500 - 700	50 - 60	75 - 85	Field repair system.
Multipurpose					
L-12 K-6	100 : 10	5,000 - 8,000	30 - 40	110 - 130	Fast reactive system for general purpose composites.

Adhesives for repairs

Lapox systems	Mixing ratio (resin : curing agent)	Mix viscosity ¹ @ 25 °C	Pot Life ² @ 25 °C	Colour	Recommendations
	parts by weight	mPa s	minutes	°C	
A-16 AH-801	100 : 100	10,000 - 14,000	3 - 5	Resin: 1 GS Curing agent: 2 GS	Rapid cure adhesive for bonding similar dissimilar substrates (5-7 minutes).
A-31 K-31	100 : 80	30,000 - 35,000	75 - 90	Resin: off white viscous liquid Curing agent: 8 GS	Suitable for bonding glass, metal, FRP and wood with high shear strength requirements (up to 120 kgf/cm ²).
A-38 K-99	100 : 40	50,000 - 1,00,000	60 - 110	Resin: beige thixotropic paste Curing agent: off white paste	Ambient curing thixotropic system with temperature resistance up to 120 °C. Suitable for bonding a wide variety of substrates.

¹Brookfield viscosity | ²Pot life of 100 g mix mass | ³Tg: Glass transition temperature | Mix viscosity - ASTM D2196; Pot life - ASTM D2471; Tg - ISO 11375-2