

STRUCTURAL ADHESIVES

Superior speed,
aesthetics and strength.
Without the weight.



PROBLEM

With traditional fastening:
Added weight, time, cost
and difficulty.



SOLUTION

With structural adhesives:
Lightweight, strong,
durable, less expensive
fastening with better end
product aesthetics.

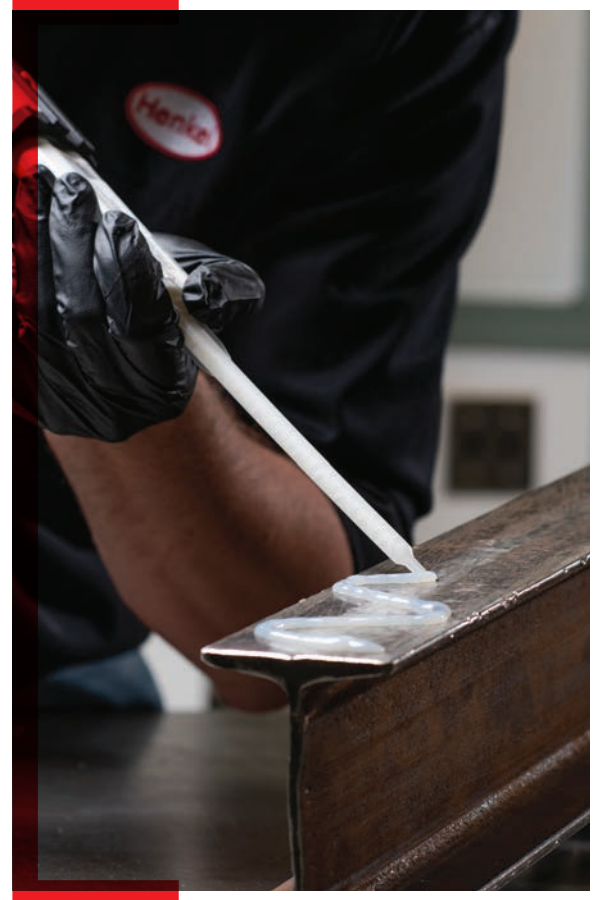
Take off the weight. Take on the load.

Structural adhesives join two materials firmly and permanently using an adhesive “bridge” between the substrates. They eliminate many of the shortcomings of mechanical methods, such as:

- Improper stress distribution which can affect product reliability
- Added weight to the end-product which can increase costs

They are also easier to apply and assemble.

Selection factors to consider include adhesive-material compatibility and joint requirements.



How to choose a structural adhesive.

GENERAL PURPOSE vs. SPECIALTY ADHESIVES

LOCTITE® has a wide range of structural adhesives, from general purpose — strong and versatile enough to cover the majority of applications, to specialty — formulated for the rare cases where general purpose won't do.

HIGH PERFORMANCE

Solutions designed for a range of product needs, with respect to impact strength, peel strength, durability, working time etc.

FLEXIBLE SOLUTIONS

Offering excellent shock absorption, elasticity and adhesion to plastics, metals and glass.

SPECIAL SUBSTRATES

From epoxies designed to be safe for food and water contact to acrylics and polyurethanes for bonding e-coated metals, rigid foams, plastics and glass.

BONDING FERRITE COMPONENTS

Epoxies and acrylics designed for the specific requirements of bonding ferrite.

POTTING

Flowable epoxies designed for filling cavities and protecting components.



FIXTURE SPEED

A range of fixture times from ultra fast to slow to meet your process requirements.



SUBSTRATE

LOCTITE® structural adhesives can bond most materials.

Find the right product for your application



GENERAL PURPOSE

LOCTITE® AA 330™

LOCTITE® EA 3801™

SPECIALTY

High Performance

LOCTITE® AA H4800™

LOCTITE® AA H8000™

LOCTITE® EA E-20HP™

Flexible Solutions

LOCTITE® EA E-05CL™

LOCTITE® UK U-09FL™

Special Substrates

LOCTITE® AA 3038™

LOCTITE® Epoxy Weld™

Magnet Bonding

LOCTITE® AA 324™

Potting

LOCTITE® EA E-30CL™

LOCTITE® EA E-60NC™

*Refer to Technical Data Sheet (TDS) for more information.



General Purpose

STRUCTURAL ADHESIVES



AA 330™
Small Gap



EA 3801™
Fast Fixture

THIS PRODUCT REQUIRES
AN ACTIVATOR **SF 7387™**



Fixture Speed: 4 minutes



Substrate: Aluminium, Ceramic, Concrete, Glass, Metal, Stainless Steel, Steel, Wood

Gap: 0.5mm

Temperature Resistance: 120°C

Colour: Pale Yellow

Chemistry: Two-step Acrylic



Working Time: 5 minutes



Substrate: Aluminium, Ceramic, Concrete, Glass, Steel, Wood, Copper Alloys and most Plastics

Temperature Resistance: 65°C

Colour: Translucent Yellow

Chemistry: Epoxy

High Performance

STRUCTURAL ADHESIVES



AA H4800™
High Impact, Environment Resistance



AA H8000™
High Impact, High Peel



Working Time: 30 minutes



Substrate: Acrylonitrile ABS, Aluminium, FRP, Gel Coat, PVC, RTM, Stainless Steel, Mild Steel

Temperature Resistance: 110°C

Colour: Light Yellow

Chemistry: Methyl Methacrylate



Working Time: 15 minutes



Substrate: ABS, Aluminium, FRP, Gel Coat, PVC, RTM, Stainless Steel, Mild Steel

Temperature Resistance: 100°C

Colour: Green

Chemistry: Methyl Methacrylate



EA E-20HP™
High Shear, High Peel



Working Time: 20 minutes



Substrate: Aluminium, Ceramic, Concrete, Glass, Metal, Steel, Stainless Steel, Wood

Temperature Resistance: 80°C

Colour: Off-white

Chemistry: Epoxy

Flexible Solutions

STRUCTURAL ADHESIVES



EA E-05CL™
Fast Fixture



UK U-09FL™
High Flexibility



Working Time: 3 minutes



Substrate: Aluminium, Ceramic, Concrete, Glass, Metal, Plastic, Stainless Steel, Steel, Wood

Temperature Resistance: 80°C
Colour: Clear
Chemistry: Epoxy



Working Time: 10 minutes



Substrate: Polycarbonate, PVC, Acrylic, ABS, Steel, Aluminium, Stainless Steel

Temperature Resistance: 93°C
Colour: Clear
Chemistry: Polyurethane

Special Substrates

STRUCTURAL ADHESIVES



AA 3038™
Difficult to Bond Plastics



Epoxy Weld™
Metal Repair/Rebuild



Working Time: 4 minutes



Substrate: Polyolefin, Polypropylene, PPGF, Polyethylene LDPE, HDPE, PTFE

Temperature Resistance: 100°C
Colour: Off-White
Chemistry: Methyl Methacrylate



Working Time: 5 minutes



Substrate: Iron, Steel, Aluminium, Brass, Bronze, Copper, Pewter

Temperature Resistance: 150°C
Colour: Grey
Chemistry: Epoxy

Magnet Bonding

STRUCTURAL ADHESIVES



AA 324™
Ultra Fast Fixture

THIS PRODUCT REQUIRES AN ACTIVATOR **SF 7387™**



Fixture Speed: 5 minutes



Substrate: Metal

Gap: 0.5 mm
Temperature Resistance: 100°C
Colour: Transparent, light amber
Chemistry: Acrylic



Potting

STRUCTURAL ADHESIVES



EA E-30CL™
Chemical Resistant, Ultra-Clear



EA E-60NC™
Non-corrosive



Working Time: 30 minutes



Substrate: Ceramics, Glass, Metals, Optical Fibers, Rigid Plastics

Temperature Resistance: 100°C
Colour: Ultra-Clear
Chemistry: Epoxy



Working Time: 60 minutes



Substrate: Ceramics, Glass, Metals, Optical Fibers, Rigid Plastics

Temperature Resistance: 100°C
Colour: Black
Chemistry: Epoxy

Equipment

STRUCTURAL ADHESIVES

DISPENSERS



50 ml
Dual Cartridge Applicators
1:1, 2:1, 4:1
Manual: 720228
Pneumatic: 476898

50 ml
Dual Cartridge Applicators
10:1 S-Style
Manual: 1034026

400 ml
1:1, 2:1, 4:1, 10:1
Manual: 2693823
Pneumatic: 2693825

STRUCTURAL ADHESIVES

STRUCTURAL ADHESIVES - 2-STEP ACRYLICS

Product	Item Number	Pack Size	Features	Colour	Viscosity	Gap Fill [max]	Fixture Time	Shear Strength [GBMS]	Temperature Range
GENERAL PURPOSE									
AA 330™	1689437	300 ml	Toughness, impact, peel and moisture resistance. Requires a SF 7387 activator	Cloudy, colourless to pale yellow	67500 cP	0.5 mm	4 mins	23 N/mm²	-55°C to 120°C
	1690727	25ml + 25g activator kit							
MAGNET BONDING									
AA 324™	88478	50 ml	Toughness, impact and peel resistance. Cures between close fittings parts. Requires a SF 7387 activator.	Transparent, light amber	17000 cP	0.5 mm	5 mins	18 N/mm²	-55°C to 100°C

STRUCTURAL ADHESIVES - 2-PART ACRYLICS

Product	Item Number	Pack Size	Features	Colour	Viscosity	Working Time	Shear Strength	Peel Strength, Steel	Temperature Range
GENERAL METAL BONDERS									
AA H8000™	996453	50 ml	Excellent impact and peel strength especially on aluminium, fast fixture time at room temp, non-sag, little surface prep required, excellent environmental resistance.	Green	125,000 cP	15 mins	19.3 N/mm² (GBMS)	8 N/mm	-55°C to 100°C
	411833	490 ml							
PLASTIC AND COMPOSITE BONDERS									
AA 3038™	1070182	490 ml	Polyolefin bonder; strong adhesion to polyethylene and polypropylene. Fast fixture time, impact resistance. 0.25mm spacer beads.	Clear / Yellow	12,000 cP	4 mins	11.4 N/mm2 (HDPE)	10 N/mm	-55°C to 100°C
AA H4800™	2061246	490 ml	Excellent environmental resistance and tolerance to off-ratio mixing, excellent impact, toughness and peel strength, non-sag, slightly flexible.	Light Yellow	50,000 cP	30 mins	16 N/mm² (GBMS)	14 N/mm	-55°C to 110°C



STRUCTURAL ADHESIVES - EPOXIES								
Product	Item Number	Pack Size	Features	Colour	Viscosity	Working Time	Shear Strength (GBMS)	Temperature Range
HIGH PERFORMANCE								
EA E-20HP™	237107	50 ml	Structural bonder with high impact, peel resistance and shear strength. Excellent bond strength to metals, plastics, dry concrete, limestone. Good chemical and solvent resistance, electrical insulator.	Off-White	40,000 cP	20 mins	22 N/mm²	-40°C to 80°C
	237109	400 ml						
EA E-30CL™	237116	50 ml	Excellent bond strength to glass, plastics, metals, limestone. Impact resistance. Good chemical and solvent resistance, electrical insulator for potting and fiber optic applications.	Ultra Clear	6,000 cP	30 mins	21 N/mm²	-40°C to 100°C
	237118	400 ml						
EA E-60NC™	237113	50 ml	Rigid. Long working time. Non-corrosive, electrical insulator for electronic, encapsulating and potting applications. Good environmental and chemical resistance.	Black Opaque	8,000 cP	60 mins	18.1 N/mm²	-40°C to 100°C
EA 9460™	416033	2.3 kg	Non-sag. High shear strength, impact and peel resistance. Long working time. Flexible. Good chemical, fuel, oil and moisture resistance.	Grey	200,000 cP	50 mins	24.1 N/mm²	-40°C to 100°C
FAST FIXTURE								
EA E-05CL™	237099	50 ml	Fast fixture time. Toughened, good peel resistance. Flexible. Wide range of chemical and solvent resistance. Electrical insulator. Low odour.	Ultra Clear	2,500 cP	3 mins	10 N/mm²	-40°C to 80°C
Epoxy Weld Bonding Compound™	2040806	56 ml	Fast fixture time, tough, high strength. Repair, fill and rebuild metal surfaces. Can be sanded, drilled, machined when cured. Resistant to most shop chemicals and solvents. Electrical insulator.	Grey	Paste	5 mins	25.8 N/mm²	-55°C to 150°C
EA 3801™	168330	29.5 ml	General purpose, fast fixture time. Dual syringe. Flexible. Good chemical, solvent and fuel resistance, electrical insulator.	Translucent Yellow	15,000 cP	3 mins	16 N/mm²	-40°C to 65°C
STRUCTURAL ADHESIVES - POLYURETHANE								
UK U-09FL™	563159	50 ml	Urethane adhesive for plastic bonding. Impact and peel resistance. Highly flexible.	Ultra Clear	5,000 cP	10 mins	10 N/mm²	-40°C to 93°C

