



A-K607

Two-Component Rigid Foaming Adhesive.



PRODUCT DESCRIPTION

PHASTER® A-K607 is a two-component ambient temperature cured, structural foam with adhesive properties that has the ability to bond to a variety of substrates and fill variable gaps.¹

PHASTER® A-K607 provides value over other foam-in-place products by providing high strength at low density, fast reaction times, and excellent adhesion to a variety of substrates.

PHASTER® A-K607 is free of isocyanates and organic volatiles.

Product Attributes

- Bonds and seals variable gaps and matches irregular surfaces
- Fast curing for short cycle times and quick repairs
- Bonds to a variety of substrates
- Contains no isocyanates or organic volatiles
- Seals to prevent intrusion of dust, water, etc.
- Maintains adhesion and protects substrates when exposed to salt and humid conditions
- Lightweight with high load-bearing capability
- Strengthens and reinforces substrates
- Sandable, machinable, and paintable
- Retains mechanical fasteners, inserts, and brackets
- Inherently flame-resistant

Typical Applications

- Load bearing grout, structural gap filler, and foamable adhesive in architectural repair applications, new construction, and industrial applications
- Cavity reinforcement that adheres to various substrates where low density and high strength are desired
- Reinforcement for structures and panels
- Composites manufacturing

Technical Data

			Test Method
Physical Properties	Color	A-K607 Part A	White
		A-K607 Part B	Light Brown
		Mixed product	Off-White
	Mix Ratio (by volume)	4:1	
	Open Time ²	2.5–4 min	
	Fixture Time ³	6–8 min	
	Full Cure	1 day	
	Return to Service ⁵	2 hr	
	Viscosity @ 25°C	A-K607 Part A	45,000–55,000 cP Parallel Plate Rheometer, 10 s ⁻¹
		A-K607 Part B	39,000–55,000 cP Parallel Plate Rheometer, 10 s ⁻¹
	Cured Density ⁶	0.54 g/cm ³ [34 lb/ft ³]	
	Volume Expansion ⁶	130–180%	
	Application Temperature	10°C to 45°C [50°F to 113°F]	
	Service Temperature ⁴	-40°C to 60°C [-40°F to 140°F]	
Mechanical Properties	Lap Shear Strength ⁷	6.0 MPa [870 psi]	
	Tensile Strength ⁸	28 MPa [4061 psi]	ASTM D638, JISK 6301-1 Specimen
	Tensile Modulus ⁸	3,300 MPa [479 kPsi]	ASTM D638, JISK 6301-1 Specimen
	Strain to Failure	1.3%	ASTM D638, JISK 6301-1 Specimen
	Compressive Strength ⁹	17 MPa [2465 psi]	ASTM D695, 30 mm x 60 mm cured cylinder (1 3/16 in x 2 3/8 in.)
	Compressive Modulus ⁹	1,000 MPa [145 kPsi]	ASTM D695, 30 mm x 60 mm cured cylinder
	Weight % Gain When Submerged for 24 Hours	0.4% (Painted), 1.3% (Unpainted)	ASTM D570, 25.4 x 25.4 mm cured cylinder (1 in x 1 in)
	Burn Rate	17 mm/min [0.67 in/min]	UL94 HB at 3.3 mm thickness 0.13 in (1/8 in)

Typical values

Surface Preparation

General: The following recommendations are for informational purposes only. Before attempting any bonding application, users should test the adhesion to the surface using their specific material and application. Any applications involving critical or serial production should consult L&L Products Technical Service & Support Staff.

Metals: Recommended to be clean, dry, and free of dust, debris, and any loose oxides or coatings. Heavy oils and grease must be removed. It may be necessary to use an additional surface preparation product. Consult L&L Products Technical Service & Support Staff.

Thermoplastics: Recommended to be clean, dry, and free of dust and debris. Excessive oily residue must be removed. Clean surfaces thoroughly. Not recommended to bond to polyethylene, polypropylene, or fluoropolymers.

Composites: Recommended to be clean, dry; and free of dust, debris, and any loose coatings, including heavy layers of release agent. Abrasion may be required. Composites should be cleaned as described.

Other: Consult L&L Products Technical Service & Support Staff.

Application Conditions

Material Conditioning: 23°C [73°F] will be thick and slow to apply. Conditioning the material from 23°C to 35°C [73°F to 95°F] for 2 hours before application is recommended.

Ambient Temperature: Apply at 10°C to 45°C [50°F to 113°F].

Application

Cartridge Application: Check each cartridge to ensure that the openings are free of obstruction or debris that would prevent flow. PHASTER® A-K607 must be applied through a 10 mm x 24-element or 13 mm x 24-element helical-type static mixer (Medmix MFHX 10-24T or MFHX 13-24T). Do not modify the mixer. Before bonding, dispense a small amount of material through the static mixer (purge) until the product exiting the mixer appears to be uniformly mixed.

Bulk Application: PHASTER® A-K607 can be applied using multiple types of meter-mix systems. The material is mixed through a machine-grade 13 mm x 24-element helical-type static mixer (Medmix MCH 13-24T) with a metal shroud. Do not modify the mixer. Contact parts should be austenitic (316 grade) stainless-steel in construction. Seals and gaskets should be PTFE, PVDF, PolyPro, EPR, Fluorocarbon, Viton, Peek, or Kalrez. Hoses should be Teflon®-lined. Consult L&L Products Technical Service & Support Staff and the equipment supplier to ensure compatibility.

Clean-Up: Excess material should be removed before curing using a general-purpose organic solvent. Avoid disturbing the bond area during clean-up.

Painting is recommended for surfaces exposed to UV radiation (sunlight).

Personal Protective Measures

Avoid contact with skin and eyes by using latex, rubber, or polyethylene gloves and protective safety eyewear.

Shelf Life & Storage Conditions

Shelf life: 24 months from date of manufacture – stored at less than 25°C [77°F] in original packaging. Long-term exposure to elevated temperatures can cause the material to lose performance characteristics.

Health & Safety

Consult product-specific Safety Data Sheet for all safety and environmental information concerning use and disposal of this product.

Notes:

1. Test all applications according to anticipated production and service conditions.
2. The time period after mixing the components before the materials must be mated and positioned.
3. Varies with ambient conditions, bond size, and substrate. Must be tested with customer parts.
4. Based on material stiffness. Adhesives performance changes depending on service temperature. Evaluate adhesive performance at anticipated service conditions. Consult L&L Products Technical Service & Support staff.
5. The approximate time to reach full compressive modulus at 23°C [73°F] and at least 40 g.
6. 100 ml sample at 23°C [73°F].
7. Lap shear strength measured at 23°C on clean EG-60 steel (1.5 mm thick).
Overlap: 25.4 mm x 12.7 mm,
Bondline thickness: 0.5 mm
8. Tensile specimen cured partially constrained, 1.12 g/cm³ cured density, measured at 23°C [73°F].
9. Specimen density 0.63 g/cm³, measured at 23°C [73°F].

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