



AN ELLSWORTH ADHESIVES COMPANY 

Technical Data Sheet EP1407

10/7/2016

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022
262-253-5900 FAX 262-253-5919

DESCRIPTION:

ResinLab® EP1407 is a two-part filled and flame retardant epoxy syntactic foam. It contains glass microspheres to reduce cured density and to improve machinability. This product will be self-extinguishing when tested at ¼" thickness. It also provides excellent protection against water, humidity, salt spray and other chemicals.

It was formulated to a 2:1 volume mix ratio for convenient dispense from side-by-side cartridges.

EP1407 will cure to a firm, sandable hardness at room temperature in about 30 to 45 minutes, with full cure within 24 hours. Heat build up from sanding may cause some gumming if sanded too early. Cure time may be accelerated by the application of heat. Time to heat substrate must be taken into account, with cooler temperatures extending the work time. Warming the cartridge will aid in increased dispensing flow rate and will also boost the cure speed.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

Property:	Value:	Test Method or Source:
Color	White A / Black B / Gray Mixed	Visual
Mix Ratio	Part A to Part B	
By weight	1.8 to 1	
By volume	2 to 1	
Cure Schedule	24-72 hours @ 25 °C 1-2 hours @ 65 °C	
Viscosity – Part A	Soft paste	Rheometer parallel plate 25mm@1/s
Viscosity – Part B	Soft paste	R050-49
Viscosity - Mixed	Soft paste	
Specific Gravity – Part A	0.65	Calculated
Specific Gravity – Part B	0.73	
Specific Gravity - Mixed	0.70	
Pot Life	1-5 minutes / 10 grams	Visual / cup and stick
Sand Time	30-45 minutes	
Hardness	65 Shore D	R050-17/ASTM D2240
Flame Resistance	Self-extinguishing at ¼"	Resinlab test
Temperature Range	-40 to 150 °C	**

** Temperature Range is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.

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INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing.
2. Cartridge format: Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount. Attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Bulk format: weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
5. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE:

6 months at 25 °C Bulk (edgefills)
6 months at 5 °C cartridges
Specialty packaging may be less.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50 °C) aggravate this phenomenon. Heating the individual component to 50 to 60 °C while stirring can usually restore products to original state. Storage at 25 +/- 10 °C is optimum for most products.