

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

DESCRIPTION:

Resinlab[®] EP1405 is a two part mineral filled flame retardant epoxy syntactic foam designed for edge fill applications. It has been formulated without the flame retardant decabromodiphenyl ether which is no longer available due to chemical regulations. EP1405 provides excellent protection against water, humidity, salt spray and other chemicals.

EP1405 passes FAR 25.853 60 second vertical ignition for an edge fill on Nomex and on aluminum honeycomb. It contains glass microspheres to reduce cured density.

TYPICAL PROPERTIES:

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

Property:	Value:	Test Method or Source:
Color	Light green	Visual
Mix Ratio	Part A to Part B	
By weight	1.89 to 1	
By volume	1.97 to 1	
Cure Schedule	2-3 hours at 65 °C 24-72 hours at room temperature	
Viscosity – Part A	197,300 cps @1/s 57,860 cps @10/s	Rheometer parallel plate 25mm R050-49
Viscosity – Part B	63,500 cps @1/s 20,700 cps @10/s	
Viscosity - Mixed	100,000 cps @1/s 30,000 cps @10/s	Mixed values are estimated
Specific Gravity – Part A	0.68	Calculated
Specific Gravity – Part B	0.71	
Specific Gravity - Mixed	0.69	
Pot Life	10 minutes / 10 g sample	WI R050-59
Hardness	70 Shore D	R050-17/ASTM D2240
Sandability at ½" bead	2.5 hours at room temperature	Manual sand with 80 grit paper
Compressive Properties:		R050-38/ASTM D695
Peak Stress	6,000 psi	
Modulus	184,000 psi	
Flame Resistance	Passes Resinlab testing for UL94V-0. Not UL-certified for HB V0,V1,V2. Passes FAR 25.853 as edge fill for both Nomex honeycomb and aluminum honeycomb	UL94 FAR 25.853 60 second vertical ignition

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

INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing. Cartridges should be stored in a vertical position to allow any air to accumulate at the tip. 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.
2. If used in bulk, 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. If the product is used in a side-by-side cartridge, 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. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
4. 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
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.