

Starting Formulation

SF 4012 General Epoxy Adhesive 828 3245 General Purpose Aluminum Filled Epoxy Adhesive EPON™ Resin 828 / EPIKURE™ Curing Agent 3245

Introduction This formulation is designed for general purpose use in areas where adhesion to a variety of substrates, such as metals, wood and concrete, is required. This epoxy adhesive has a pot life that is adequate for most ambient temperature applications and cures to handling strength in 4 to 5 hours.

Formula	<u>Material</u>	<u>Supplier</u>	<u>Pounds</u>	<u>Gallons</u>
Part A				
	EPON Resin 828	Hexion	50.0	5.18
	Aluminum Powder #120	Reynolds Metals Co.	<u>50.0</u>	<u>2.25</u>
	Total A		100.0	7.43
Part B				
	EPIKURE Curing Agent 3245	Hexion	<u>5.0</u>	<u>0.59</u>
	Total B		5.0	0.59
	Total Part A & B		105.0	8.02

Mixing Instructions Disperse Aluminum Powder #120 into EPON Resin 828 using a high speed mixer or equivalent mixing equipment until a homogeneous blend is obtained.

Immediately prior to use, blend tetraethylenepentamine with the resin portion and stir until a uniform mixture is attained. A one-pint batch of this formulation has a one-hour pot life at normal room temperature. Larger batches have a shorter pot life due to the exothermic reaction.

For optimum adhesion, this adhesive should be applied to substrates free of oil, dirt and grease. An adhesive bond line approximately 0.005-inch thick provides the best results. Application may be by brush or trowel. If shorter cure times are required, a 10 minute cure at 120 °C provides satisfactory strength development.

Typical Handling Properties Table 1 / Handling Properties

	<u>Units</u>	<u>Value</u>
Tensile Shear Strength		
Aluminum	psi	1,050
Copper	psi	350

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Combining ratio (resin/curing agent)	by weight	100 : 5
Viscosity		Paste
Gel Time, 1 pint mass	min.	60

Storage Recommendations regarding storage conditions can be obtained by visiting our web site at www.hexion.com

General Information

These are starting formulations and are not proven in the user's particular application but are simply meant to demonstrate the efficacy of the products and to assist in the development of the user's own formulation. It is the user's responsibility to fully-test and qualify the formulation, along with the ingredients, methods, applications or equipment identified herein ("Information"), by the user's knowledgeable formulator or scientist, and to determine the appropriate use conditions and legal restrictions, prior to use of any Information.

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

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