Starting Formulation

SF 4021 Economical One-Package Adhesive 828 BF Catalyst Economical One-Package Adhesive

EPON™ Resin 828 / BF3 Amine Catalyst

Introduction This one-package adhesive, which requires a high temperature curing schedule, can yield relatively long shelf life at room temperature.

Suggested Uses

- Cost sensitive applications where a one-component adhesive is desired and a heat cure is available.

Features

- One Pack
- Economical
- Service temperature up to 100°C

Formula

Material	Supplier	Pounds	Gallons
Part A			
EPON Resin 828	Westlake Epoxy	50.0	5.170
ExCAL W3 (ground calcium carbonate)	Excalibar Minerals Inc.	48.0	2.160
Cab-O-Sil TS-720 (fumed silica)	Cabot Corporation	2.0	0.114
	Total A	100.0	7.444
Part B			
Leecure 38-239B (BF_3 amine catalyst)	Leepoxy Plastics, Inc.	1.5	---
	Total B	1.5	---
	Total Part A & B	101.5	7.444

Mixing Instructions Preheat Leecure 38-239B catalyst to 35°C.

Disperse Leecure 38-239B into EPON Resin 828 using a high shear mixer, such as a single shat, high speed disperser with high shear impeller. Heating to a temperature of 35 – 40°C will aid mixing. Planetary mixers can also be used.

Disperse the Cab-O-Sil TS-720 and ExCAL W3 into the resin blend, using the same dispersing equipment, until a smooth, uniform dispersion is achieved.

This formulation is a basic starting point and can be modified with other filler types, such as talc, clay alumina, ground silica, wollastonite or calcium carbonate.

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Modification with silane coupling agents, such as Z-6040 Epoxysilane from Dow- Corning improves bonds to concrete and glass.

Typical Handling Properties

Table 1 / Handling Properties

	Units	Value
Expected Shelf Life @ 25°C (77°F)	months	4
Form / Viscosity @ 25°C		Thixotropic Paste
Density @ 25°C	lb/gal	13.4

Application Instructions

All surfaces to be bonded should be clean and free of dust, dirt, grease, oil or other contaminants. For optimum adhesion it is recommended to roughen bonding surfaces. This can be accomplished with abrasive media appropriate for the materials being bonded (such as medium grit emery paper, abrasive disks, grit blasting, wire brushes, etc.) Abrasion should always be followed by degreasing to remove contaminants and loose particles. Chemical etching is another method to provide a rough surface for improved adhesion.

Apply by spreading a thin film approximately 0.005 inch thick over the surface to be donded. Maintain light pressure during cure for optimum bonding.

Cure Schedule

30 minutes @ 177°C (350°F) or 2 hours @ 135°C (275°F)

Typical Cured State Properties

Table 1 / Adhesive Properties – Aluminum

Test Property	Substrate	ASTM	Units	Value
Tensile Shear Strength @ 25°C (77°F) Cured 7 days @ 93°C	Aluminum	D-1002	psi	875

Storage

Recommendations regarding storage conditions can be obtained by visiting our web site at www.westlakeepoxy.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.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Westlake Epoxy, Inc. ("Westlake Epoxy") products should be directed to your Westlake Epoxy sales representative, or the nearest Westlake Epoxy sales office. Information and MSDSs on non-Westlake Epoxy products should be obtained from the respective manufacturer.

Contact Information

For product prices, availability, or order placement, please contact customer service:

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www.westlakeepoxy.com/Contacts/

For literature and technical assistance, visit our website atwww.westlakeepoxy.com

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