HEXION
Responsible Chemistry

Starting Formulation

SF 4013 Epoxy Marker Adhesive CS-241 3271and3153 Epoxy Traffic Marker Adhesives

EPON™ Resin CS-241 / EPIKURE™ Curing Agent 3271 and 3125 and 3253

Introduction This epoxy adhesive was designed for the bonding of ceramic or plastic traffic markers to roadway and bridge surfaces.

Suggested Uses

- Bridges and roads
- Cementitous surfaces, parking decks
- Metallic, plastic, ceramic binder

Features

- Equal volume combining ratio
- Fifteen-minute pot life; two-hour set time in glue line thickness at 25 °C,
- four-hour set time at 16°C
- High impact strength

Formula	Material	Supplier	Pounds	Gallons
	Part A			
	EPON Resin CS-241	Hexion	100.0	10.3
	Nonylphenol	Jefferson Chemical Company	5.0	0.63
	Titanium Dioxide R-101	Du Pont Company	3.0	0.09
	Cab-O-Lite P-4	Cabot Corporation	43.0	1.82
	Cab-O-Sil TS-720	Cabot Corporation	3.5	0.21
	Kay-O-Cel K16DX50	American Fillers and Abrasives, Inc.	1.0	0.32
		Total A	155.5	13.67
	Part B			
	EPIKURE Curing Agent 3271	Hexion	20.0	2.42
	EPIKURE Curing Agent 3125	Hexion	10.0	1.24
	EPIKURE Curing Agent 3253	Hexion	2.0	0.24
	Nonylphenol	Jefferson Chemical Company	70.0	8.82
	Cab-O-Lite P-4	Cabot Corporation	10.0	0.42
	Cab-O-Sil TS-720	Cabot Corporation	3.5	0.21
	Kay-O-Cel K16DX50	American Fillers and Abrasives, Inc.	1.0	0.32
		Total B	116.5	13.67

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Total Part A & B	272.0	27.34

Typical Handling Properties

Table 1 / Handling Properties

	Units	Value
Mix Ratio Part A : Part B	By Volume	1 : 1
Mix Ratio Part A : Part B	By Weight	100 : 75
Viscosity @ 25°C		
Resin	cP	130,000
Curing Agent	cP	80,000
System	cP	100,000
Density		
Resin	lb/gal	11.38
Curing Agent	lb/gal	8.52
System	lb/gal	9.95
Gel Time @ 25°C, 100 grams	min.	15
Thixotropy [1]	inches	0.087

[1]Thickness remaining after heating a 0.1-inch thick coating applied to a vertical surface at 49 °C until gelled.

Application Instructions

Part A

The titanium dioxide pigment should be milled or sheared into a portion of the EPON Resin 828 using a 3-roll mill, Cowles Dissolver, or other suitable high shear dispersing equipment. This color paste is then combined with the remaining EPON Resin 828 and other liquid components. Add the Cab-O-Lite P-4, Cab-O-Sil TS-720, and Kay-O-Cel K16DX50 and disperse using moderately high shear mixing at about 2,000 rpm.

Part B

Blend all liquid components, then add the Cab-O-Lite P-4, Cab-O-Sil TS-720, and Kay-O-Cel K16DX50. Disperse using moderately high shear mixing. When uniformly mixed, pour the converter portion into tightly sealed containers.

Blend together equal volumes of resin and converter portions until a uniform color is obtained. Apply formulation to the clean substrate within 15 minutes after mixing.

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.

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 Hexion, Inc. ("Hexion") products should be directed to yourHexion sales representative, or the nearestHexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Contact Information

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

www.hexion.com/Contacts/

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

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