Technical Data Sheet

SP-AD0052

Substituted Urea Accelerator

SP-AD0052 is an accelerator for dicyandiamide (DICY) in one-component epoxy resin systems. It is [4,4'-(methylene bis (phenyl dimethyl))] urea, CAS number 10097-09-3. Typical usage is 1 to 3 percent. It provides for good ambient shelf-life stability in epoxy formulations and can be formulated to cure a one-component DICY system within 10 minutes at 350°F.

Issue Date:	2/21/2024
Specific Physical Form:	Powder
Color:	White
Shelf Life:	1 year

Typical Properties -

Bulk Density:	11-15 lbs/ft^3
Particle Size:	90% < 30 microns 9 - 14 micron mean
DSC Melting Point:	215-230°C
Percent Volatiles:	<1.0%
Peak Cure Temperature[1]:	147°C - 153°C
Peak Cure Temperature[2]:	157°C - 163°C
Shelf Life of Formulation[3]:	4 months

1) Measured on the DSC at 10°C/min ramp. Formulation was 8% Dicy and 3% accelerator in Bis A liquid epoxy.

2) Measured on the DSC at 20°C/min ramp. Formulation was 8% Dicy and 3% accelerator in Bis A liquid epoxy.

3) Formulation was 8% Dicy and 3% accelerator in Bis A liquid epoxy.

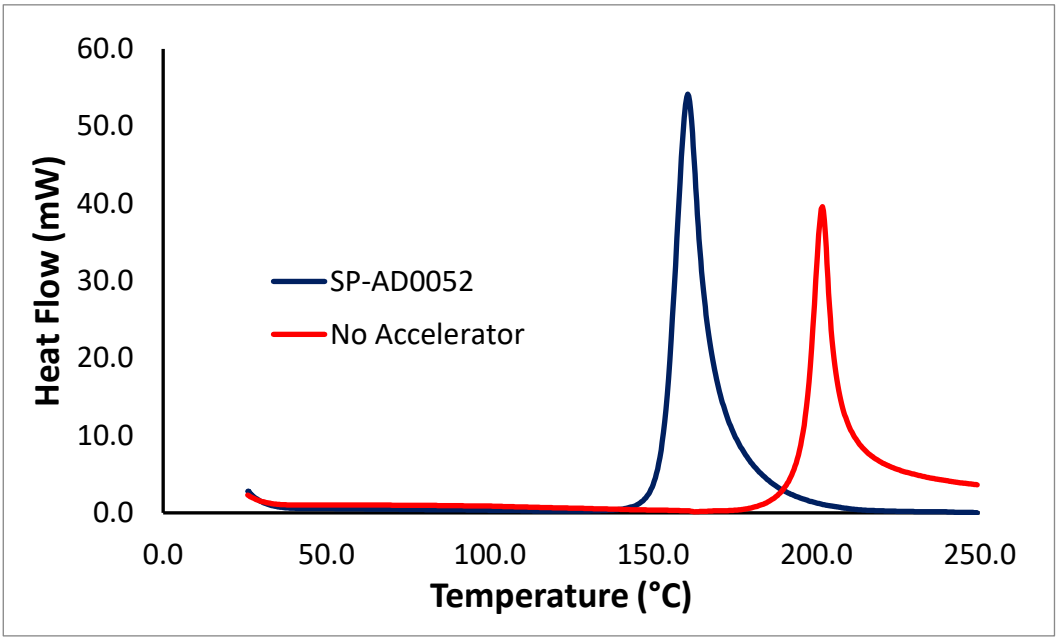

Figure 1: 1-Part dicyandiamide-epoxy cure DSC curve. Blue line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and 3% SP-AD0052. Red line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and no accelerator. DSC was ramped at 20°C/min under nitrogen flow.

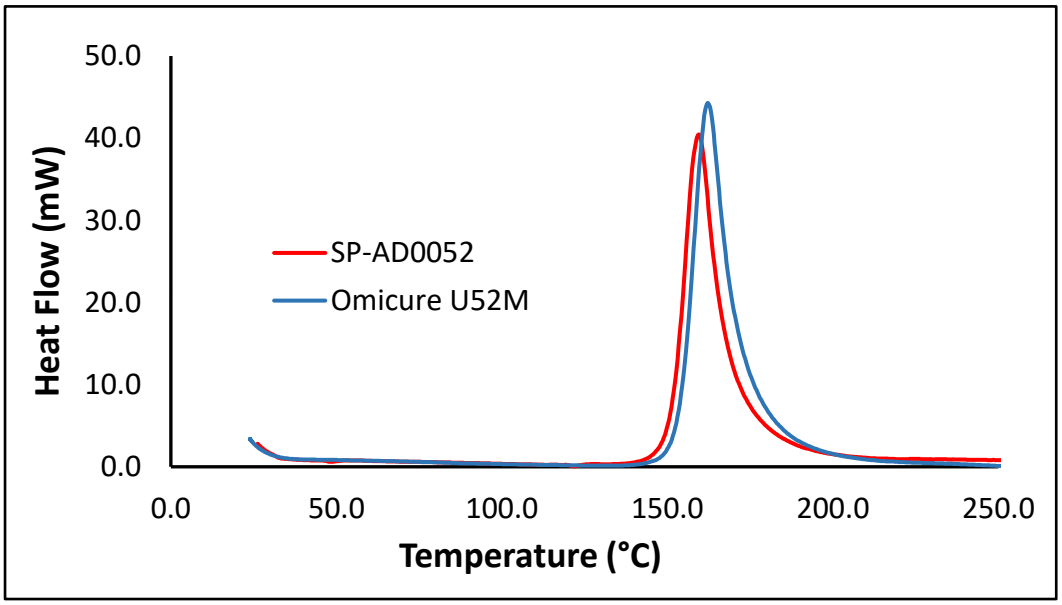

Figure 2: 1-Part dicyandiamide-epoxy cure DSC curve. Red line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and 3% SP-AD0052. Blue line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and Omicure U52M. DSC was ramped at 20°C/min under nitrogen flow.

Disclaimer:

The information provided herein was believed to be accurate at the time of preparation and is supplied to assist in using this product. No liability will be accepted in application of the information in this data sheet and no guarantee of performance results is given in any particular user application. It is the responsibility of the user to fully investigate and determine the suitability of this product for any intended use.

Springfield Industries, LLC | 609 Folk Court, Imlay City, MI | 48444, USA

Phone: (810) 721-2800 | Fax: (810) 721-2805 | Email: customerservice@springfieldind.com

www.springfieldind.com