



SP-AD-0052

Technical Data Sheet

Issue Date: 7-1-2026

Substituted Urea Accelerator

SP-AD0052 is an accelerator for dicyandiamide (DICY) in heat-activated epoxy resin systems. It is [4,4'-(methylene bis (phenyl dimethyl))] urea. The Chemical Abstract Number is 10097-09-3.

Typical usage is less than 3 percent by weight.

SP-AD0052 allows heat-activated epoxy materials to have an excellent balance between low-temperature cure and shelf life. Systems using the combination of DICY and SP-AD0052 can be formulated to cure at temperatures as low as 300°F (149°C) while still having at least a 4-month shelf life.

Specific Physical Form:	Powder
Color:	White
Shelf Life:	1 Year

Typical Properties:

Bulk Density:	11 - 15 lbs/ft ³
Particle Size:	90% < 30 microns
Melting Point Using DSC:	419°F - 446°F (215°C - 230°C)
Percent Volatiles:	< 1.0%
Peak Cure Temperature ¹ :	297°F - 307°F (147°C - 153°C)
Peak Cure Temperature ² :	315°F - 325°F (157°C - 163°C)
Shelf Life of Formulation ³ :	4 months

1) Measured on the DSC using ramp of 10°C/min. Formulation was 8% DICY and 3% SP-AD0052 in Bis A liquid epoxy.

2) Measured on the DSC using ramp of 20°C/min. Formulation was 8% DICY and 3% SP-AD0052 in Bis A liquid epoxy.

3) Formulation was 8% DICY and 3% SP-AD0052 in Bis A liquid epoxy.

The information provided above is believed to be accurate and represents the best information available at the time. Persons using the information must make their own determinations and assessments as to the suitability of the relevant information for their purposes. Springfield Industries assumes no liability arising out of the use of or reliance on this information, or out of the use or the performance of the product.

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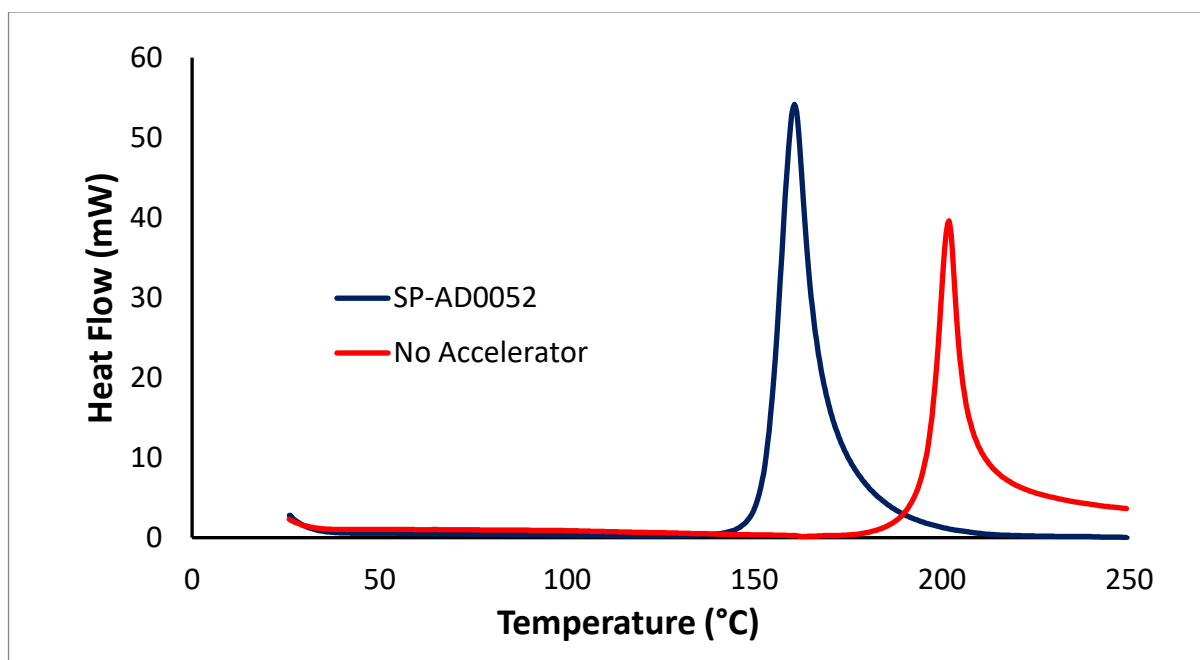


Figure 1: 1-Part dicyandiamide-epoxy cure DSC curve. Blue line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and 3% SP-AD0052. Red line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and no accelerator. DSC was ramped at 20°C/min under nitrogen flow.

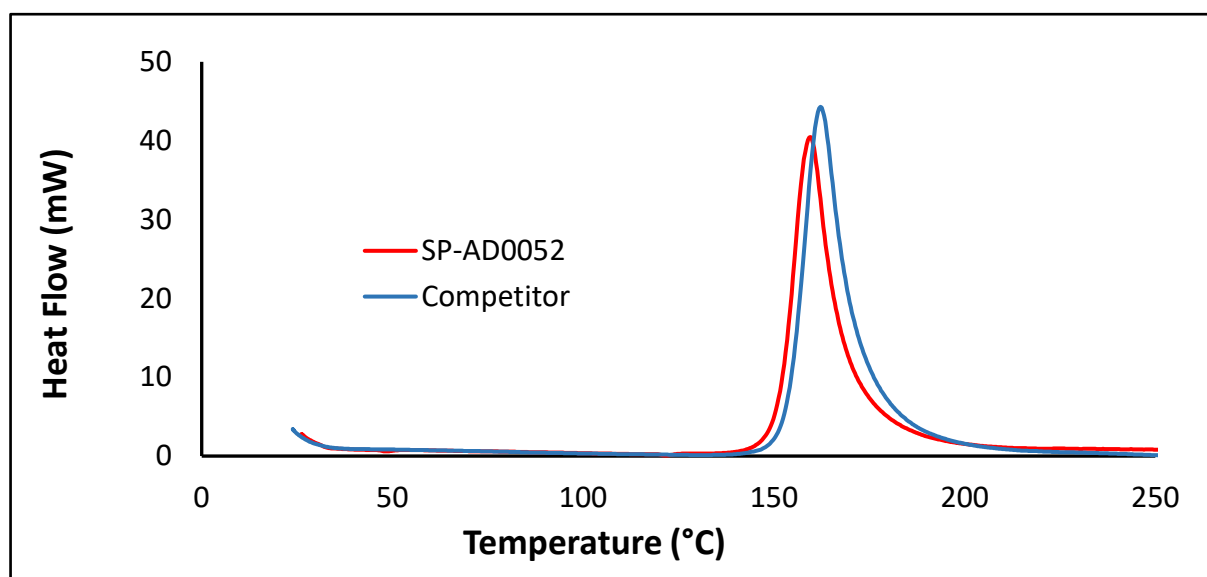


Figure 2: 1-Part dicyandiamide-epoxy cure DSC curve. Red line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and 3% SP-AD0052. Blue line shows the temperature ramp cure of liquid Bis-A epoxy with 8% DICY and Omicure U52M. DSC was ramped at 20°C/min under nitrogen flow.

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