

## Evaluate OMICURE™ U-24 as a Dicyandiamide Accelerator in Typical Powder Coating Formulations

### Objective

Evaluate OMICURE U-24 as an accelerator for dicyandiamide in powder coating formulations. Compare to a typical starting point formulation of Epon 2002 / Epi-Cure P-101.

### Procedure

All raw materials used in this investigation were collected after passing through a 230 mesh screen. On the DSC conduct a thermal scan from 25° - 220° C. Run second scan for Tg.

### Formulation, pbw

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
Epon 2002	100	-----	-----	-----	-----	----->
Epi-Cure P-101	3	4	3	-	-	-
Omicure DDA-10	-	-	2	2	2	2
Omicure U-24	-	-	-	1	2	3
Cab-O-Sil TS-530	1	-----	-----	-----	-----	----->

### Results

Tg, ° C	92	101	114	107	111	110
Reaction Rate						
Time to 90% Completion at:						
140° C, minutes	>>60	>>60	>>60	>>60	48	33
150° C, minutes	>>60	>>60	38	>>60	23	17
160° C, minutes	>>60	18	15	19	11	9
170° C, minutes	7	3	6	8	6	5
180° C, minutes	1	1	3	4	3	3