

New ultra-fast curing agent for adhesives applications

Ancamine® 2914UF



In response to market demand for increased productivity and environmental friendliness, Evonik designed a new ultra-fast 2K epoxy hardener for structural adhesives applications. Ancamine® 2914UF curing agent not only sets within 10 minutes at ambient temperature but also offers ultra-fast cure speed along with rapid property development. Another key benefit of this product is that it is an odorless non-Mercaptan, 100% solids, BPA-, nonyl phenol- and benzyl alcohol-free curing agent. Additionally, it provides excellent mechanical properties and good thermal resistance. **Figures A and B** demonstrate selected performance properties of Ancamine® 2914UF (since most solvent-free fast cure systems for epoxy resin are Mercaptan, the attached figures use that system as a reference). These properties make Ancamine® 2914UF curing agent an ideal choice for the structural and general-purpose adhesives, where it allows end users to improve production throughput.

CONTACT

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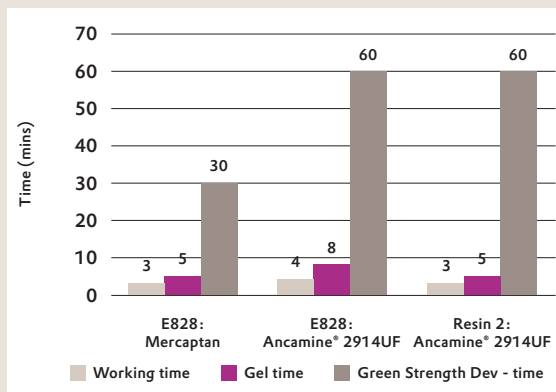


Figure A Cure properties of Ancamine® 2914UF curing agent, Gel time (20g) - Shyodu

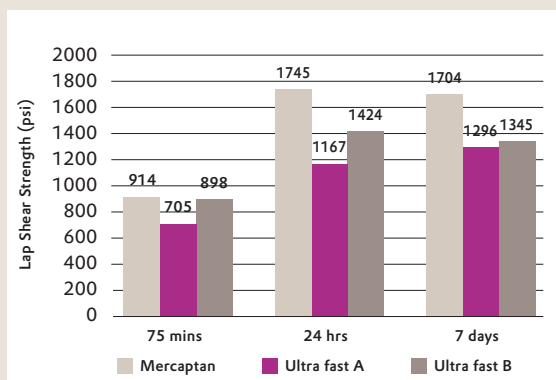


Figure B Lap shear strength development at ambient temperature

Resin	Mercaptan Formulation	Ultra Fast A	Ultra Fast B
Epon 828	100	100	
Resin-2			100
Curing agent			
Capcure 3800	95		
Ancamine® K54	5		
Ancamine® 2914UF curing agent		50	50
Resin:CA Ratio (wt.)	100:100	100:50	100:50
Gel time (25°C, 20g)	280 s	460 s	279 s
Tg after 7 days scan (25°C)	27.8	65	58
	Wt %	Resin-2	
	Epon 828	100.00	88.00
	TMPTA	-	7.00
	Lauryl acrylate	-	5.00
	Subtotal %	100	100
	EEW	190	180.2