

## Technical Bulletin

# JEFFAMINE<sup>®</sup> D-230 amine Epoxy Curing Agent

JEFFAMINE<sup>®</sup> D-230 amine is a polyether diamine with low color, low viscosity, and moderate reactivity in epoxy curing. The polyether backbone gives cured resins with relatively high elongation and good toughness and thermal shock resistance. It can be blended with higher-viscosity curing agents to reduce viscosity, or with cycloaliphatics to improve the elongation of higher-T<sub>g</sub> cured resins.

Typical Physical Properties		Epoxy Formulation Properties <sup>a</sup>	
Brookfield viscosity, cP (77°F)	9	Viscosity, cP (25°C)	600
Specific gravity, 20/20°C	0.948	Pot life (min) (time to 10,000 cP)	~280
Density, lb/gal, 20°C	7.9	Peak exotherm T, °C (°F)	64 (147)
Flash point, PMCC, °F	250	Time to peak T, min	395
Water, wt%	0.1	T <sub>g</sub> , °C (°F)	90 (194)
Total acetylatables, meq/g	8.7	Tensile strength, psi	9800
Total amine, meq/g	8.4	Elongation, %	10
Primary amine, meq/g	8.2	Flexural strength, psi	15700
Amine hydrogen eq. wt.	60	Flexural modulus, psi	454000

<sup>a</sup> The resin was a liquid DGEBA resin of approximately 12,500 cP and 188 eew; test panels were cured for 2 hr at 80°C (175°F) and 3 hr at 125°C (257°F); the T<sub>g</sub> was determined by DSC.

The D-230 (32 phr) should be mixed thoroughly with the resin. Curing at elevated temperature is desirable to develop the full properties shown above. Good properties can be obtained, however, with cures at lower temperatures. For room temperature cures a cure accelerator (such as Huntsman Accelerator 399, 2-10 phr) is generally added.

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