

Leepoxy Plastics, Inc.

3706 W. Ferguson Rd., Fort Wayne, IN 46809

Phone: (260) 747-7411 Fax: (260) 747-7413

TECHNICAL BULLETIN LEECURE 38-239 B BCl₃ CURING AGENT

Leepoxy's LEECURE 38-239 B is a boron trichloride catalyst useful as a latent curing agent for epoxy resins. Because of its excellent latency and electrical properties, LEECURE 38-239 B is primarily used as an accelerator for anhydride-cured epoxy systems. Those systems are commonly used in filament windings, advanced composites, and electrical encapsulation applications. LEECURE 38-239 B provides lengthy shelf lives at temperatures up to 80°C, yet is highly reactive at temperatures above 120°C.

LEECURE 38-239 B will crystallize at shipping and storage temperatures slightly below normal room temperature. Above 28°C (82.4°F), it remains a very low viscosity liquid, easily poured and processed into epoxy systems. Whether as a latent curative or latent anhydride accelerator, the amount used in any formulation is determined by the base epoxy formulation and the reactivity desired.

Besides electrical encapsulation and potting, the most viable applications for LEECURE 38-239 B include filament windings, pultrusions, moldings, castings, bonding, and electrical tape fabrication. As a latent catalyst, it complements Leepoxy's latent Lewis acid liquid boron trifluoride (BF₃) epoxy curatives.

TYPICAL HANDLING PROPERTIES	
Mix Ratio ¹ by weight, phr	
as latent epoxy curative	1 – 5
as Anhydride accelerator	0.1 – 1.0
Gel Time, 7.5 g, 5 phr ¹ , min.	
@120°C	16
@ 140°C	5
Shelf Life, one-part system @ 25°C, months	4

TYPICAL PROPERTIES	
Appearance	Amber semi-solid
Melting Point, °C	<28
Viscosity @ 35°C, cps	250
Moisture Content, %	<0.60
Density, lbs./gal.	9.15
Shelf Life @ 21°C, months	6

The Information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material. Freedom to use any patent owned by Leepoxy Plastics, Inc. or others is not to be inferred from any statement contained herein.

Leepoxy Plastics, Inc., November 2003