



AC-DP & AC-DP-1

Description

AC-DP is a di-anhydride blend that combines the benefits of aromatic di-anhydrides with the ease of use of liquid anhydrides. AC-DP provides superior physical, electrical and chemical properties, lower moisture permeability and better heat aging properties. AC-DP 1 contains a proprietary imidazole accelerator. This enables rapid full cure at elevated temperatures. Tg's of 180°C are readily achievable with Bis A epoxies. AC-DP cured epoxies maintain their physical properties in hot wet conditions.

Typical Applications

- Pultrusion
- Filament Winding
- Resin Transfer Molding

Specifications

Appearance	Redish Brown Viscous Liquid
Viscosity, 25.C, cps	11,000 – 13,000
Density	1.3
Refractive Index	1.510 – 1.520
Anhydride equivalent weight	175

Typical Formulation

	Parts by Weight
Epoxy Resin (EEW 190)	100
AC-DP-1*	81

Gel at 120° C for one hour. Post cure at 175° for 3 hours.

Hold at 140° C for 6 hours.

*AC-DP-1 contains 1% AC-PI as catalyst

Properties

Tensile Strength, psi	11,500
Elongation, %	3
Tg ° C	160° C

(At cure schedule 70.C/1-1 1/2 hours)



AC-DP-1

Properties of Neat Resin Formulation

BV 179 100

AC-DP-1 80

	I	II	
Cure at 176° C	5-6 Min	5-6 Min	
Post cure at 160° C	---	4 Hrs	+ 2 Hrs. 180 C
Gel Time at 176° C	2 Min	2 Min	
HDT ° C	135	169	
Glass Transition Temperature, T _g , ° C	145	175-180	185
Degradation Temperature, T _D , ° C	335	340	
Tensile Strength, psi	4,020	3,810	
Elongation, %	0.81	0.79	
Tensile Modulus, psi	505,000	500,000	
Flexural Strength, psi	13,400	9,920	
Flexural Modulus, psi	548,000	554,000	
Electricals at 60 Hz			
30° C Dielectric Constant	3.69	3.51	
Dissipation Factor	0.005	0.004	
100° C Dielectric Constant	3.85	3.64	
Dissipation Factor	0.014	0.008	
150° C Dielectric Constant	4.07	3.82	
Dissipation Factor	0.040	0.019	

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