

SWANCOR 2214-A/B

Epoxy Resin System for Filament Winding Application



Product Description

SWANCOR 2214-A/B is two-component epoxy system. It has excellent pot life with low viscosity and also quick cure with high temperature rate at elevated temperatures.

Applications

These features coupled with excellent adhesion to several reinforcement including glass and carbon fiber make it excellent choice for filament winding applications.

Fabrication Methods

Filament winding applications

Typical properties of liquid resin

Items	SWANCOR 2214-A	SWANCOR 2214-B
Viscosity (cps,25°C)	8,000 ~ 10,000	50 ~ 100
Viscosity of mixed	1,100 ~ 1,900	
A/B ratio (weight)	100 : 80	
Gel time (25°C/100g)	>24 hours	
Gel time (120°C/1g/hot plate)	3.5 ~ 4.5 mins	
Gel time (150°C/1g/hot plate)	0.8 ~ 1.2 mins	

Mechanical properties*1

Items	SI	US Standard	Standard or Method
Tensile Strength	65~75 Mpa	9,425~10,875 psi	ASTM D 638 or ISO 527
Tensile Modulus	2.5~3.0 Gpa	3.6~4.3 X 10 ⁵ psi	ASTM D 638 or ISO 527
Elongation of Break	3~6%	3~6%	ASTM D 638 or ISO 527
Flexural Strength	100~115 Mpa	14,500~16,675 psi	ASTM D 790 or ISO 178
Flexural Modulus	2.5~3.0 Gpa	3.6~4.3 X 10 ⁵ psi	ASTM D 790 or ISO 178
Tg	125~135 °C	257~275 °F	DSC 10°C /min
HDT	120~130 °C	248~266 °F	ASTM D 648 or ISO 75-2

*1Cure condition : post cure at 120°C *1hour

RESIN STORAGE

1. The epoxy resin should retain its chemical properties for at least 12 months when stored in a dry place in its original closed packaging under 25°C.
2. The hardener should retain its chemical properties for at least 12 months when stored in their original closed packaging, in a cool, dry environment, away from direct sunlight and at a temperature not over 25°C. If possible, provide nitrogen padding in the headspace of opened containers and bulk storage facilities.
3. Hardener is hygroscopic and will absorb moisture and carbon dioxide from the atmosphere if not stored properly. Be sure to close containers immediately after use. The absorption of moisture and/or carbon dioxide will affect the chemical behavior of the material and the performance properties of the final product.

PACKAGE

1. Epoxy resin is supplied in 20Kg or 200Kg steel drum.
2. Hardener is supplied in 16Kg or 200Kg steel drum.

The data presented herein are believed to be accurate and reliable. We require customers to inspect and test our product before use and to satisfy themselves as to contents and suitability for their specific applications. Information herein is to assist customers in determining whether our products are suitable for their applications but not to be taken as a guarantee, express warranty or implied warranty of merchantability or fitness for particular purpose, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our material and in no event shall we be liable for special, incidental or consequential damages.

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