725-EP2002A&725-EP2001B Pultrusion Epoxy Resin

Produce Description

725-EP2002A&725-EP2001B system is composed of modified epoxy resin and modified anhydride curing agent, which is suitable for glass fiber and other products formed by pultrusion process. The product has excellent fluidity, good wettability to glass fiber, good demoulding performance and long operation period, and excellent thermal stability and mechanical properties after curing.

Application Fields

Suitable for glass fiber pultrusion process products, such as wind turbine blade beam pultrusion plate.

Physical and Chemical Properties

725-EP2002A

Property	Unit	Index
Appearance		Colorless, transparent and syrupy liquid
Viscosity（25℃)	cP	8000-12000
Density（25℃)	g/ml	1.1-1.3
EEW	g/eq	176-192
Sealed storage life（25℃)	month	12

725-EP2001B

Property	Unit	Index
Appearance	——	Light yellow clear liquid
Viscosity（25℃)	cP	100-300
Density（25℃)	g/ml	1.1-1.3
Sealed storage life（25℃)	month	12

725-EP2002A&725-EP2001B （100:105±2）

Properties of mixture EP2002A&725-EP2001B（Mass ratio =100:105±2）

Property	Unit	Index
Viscosity（25℃）	cP	500-1100
Density（25℃）	g/ml	1.1-1.3
Gel time（25℃）	h	≥12h
Gel time (150℃)	s	40-100

Note：1）Gel time at 25 °C: determined according to ISO 2535.

2）Gel time at 150 °C: determined according to ISO 8130.

Resin casting properties

Property	Unit	Index
Tg value	℃	Teig ≥95
		Tmg ≥100
Tensile strength	MPa	≥60
Tensile modulus	MPa	≥2700
Fracture elongation	%	≥4.0
Flexural Strength	MPa	>100
Flexural Modulus	MPa	≥2700
Volumetric shrinkage	%	≤5

Note: Curing conditions: 1 h @ 100 °C + 1 h @ 150 °C + 3h @180 °C

Mixing and stirring

In order to achieve the design performance of the epoxy resin, it is necessary to accurately weigh the epoxy resin and curing agent and fully mix the two components in the process of use. The stirring time is at least 2 minutes, and ensure that the product at the corner and bottom of the container can be fully mixed. When mechanical automatic mixing is used, it is necessary to monitor the discharge ratio of the equipment regularly and adjust the mixing equipment regularly to ensure the correct mixing ratio. 725-EP2001B curing agent and the resin after mixing are sensitive to humidity and temperature, easy to absorb moisture in the air, aggravate the reaction heat release of the resin after mixing, resulting in a shorter operational time of the pultruded epoxy resin, and even significantly change the reactivity and final performance of the product. Therefore, in the process of storage, use and transportation of pultruded epoxy resins, as far as possible to avoid contact with water.

Cure process

The optimum curing process conditions for pultrusion production are recommended:

Mould	Ⅰ	Ⅱ	Ⅲ
Temperature （℃）	150-160	190-200	190-200

Packaging and storage

725-EP2002A epoxy resin is packaged in 1100 kg/container (IBC), or 220 kg/sealed drums. Closed packaging products in a dry environment between 10℃ and 40℃, shelf life of 24 months. Liquid epoxy resins may crystallize during storage, and the possibility of crystallization can be reduced by storing the resin at temperatures greater than 25 ° C. The crystallized resin will redissolve when heated above 60℃.

725-EP2001B hardener is packaged in 1155 kg/container (IBC), or 200 kg/sealed drums. Closed packaging products in dry environment and between 10 ℃ and 40℃, shelf life of 12 months. The curing agent 725-EP2001B is sensitive to humidity and will absorb water from the environment. Therefore, ensure that the container is tightly sealed after use to prevent water absorption from affecting the chemical properties of the material and the performance of the final product.

Protective measures and personal hygiene

Uncured materials should not come into contact with food or tableware. Measures should also be taken to avoid contact of uncured materials with skin, as some people with skin allergies may be affected. Wear impermeable rubber or plastic gloves and protect your eyes. After each job, wash your skin thoroughly with soap and warm water and avoid using solvents. The workplace should be well ventilated. Please refer to the MSDS ofthis product for specific safety precautions.

Important

The information and data provided herein are for reference only and do not constitute liability, warranty or warranty for the performance of the final product. Physical values may also change without notice. It is the sole responsibility of the Buyer to determine whether the product is suitable for the Buyer's purpose in view of regional differences, circumstances and different business facilities. Therefore, HUISINS assumes no responsibility and obligation for the use of the products provided, and does not make any warranty, express or implied. It also expressly excludes any warranty as to the availability of the products and their suitability for a particular purpose.