广州格凌新材料股份有限公司
Guangzhou Green New Materials Co., Ltd.

Water-based epoxy insulation varnish

Product Description

Water-based insulation varnish FS7231 is composed of epoxy resin, specialty curing agent, water, etc. It is a one-component waterborne epoxy insulation system that has exceptional characteristics of low odor, long shelf life, strong paint film adhesion, high adhesive strength, and no paint slag. With recommend heating temperature of 110℃～130℃, FS7231 can be quickly cured after 120-180mins oven time.

Applications

This water-based epoxy insulation varnish is suitable for dipping and insulation treatment of coils of high-frequency transformers, fan motors and other electrical appliances.

Typical Properties

Item	Test Condition	Unit	Value	Reference
Appearance	--	-	white lotion	GB/T 1981.2-2009
Viscosity	Paint #4 cups 23±2℃	S	13±3	
Thick layer curing	125℃±2℃×180min	-	S1U1I3	
Volume resistivity	Normal(23℃±2℃)	Ω·m	≥1.0×1011	GB/T 1981.2-2009
	Soaking(23℃±2℃，24h)		≥1.0×108	
Electric strength	Normal(23℃±2℃)	MV/m	≥70	
Bond strength	N (Helical Coil Method)	N	≥50	GB/T 11028-1999

Processing

- Workpiece requirements: dry, clean, and pollution-free
- Impregnation process: vacuum dipping paint for 3-5 minutes, no need for the second vacuum

GUANGZHOU GREEN NEW MATERIALS CO., LTD.
Tel: +86 20 32636908
Yonghe Building, #79 Yaotianhe Street, Huangpu
Guangzhou 510530 China
Fax: +86 20 32636907
Email: lcx@igreenchem.com

negative pressure

- Drip paint: drip paint for 10-15 minutes or until the workpiece has no paint beads
- Baking conditions: 110~120℃ for 2~3 hours (according to the thickness of the transformer stack, the baking time can be extended accordingly)

Precautions

- The amount of paint in the paint storage tank is matched according to the use plan. And a certain amount of new paint can be added every day to ensure the stability of the system.
- Use stainless steel paint storage tanks, paint dipping tanks, and pipes to avoid water stains and rust.
- When dipping paint, the workpiece should not enter the dipping tank at high temperature, the internal temperature of the workpiece should be cooled to room temperature. And the temperature of the paint in the dipping tank should not exceed 30 ℃, if the temperature is too high, which may easily cause emulsion skinning.
- It is necessary to avoid mixing oily, acid-base and other substances, which will affect the stability of water-based paint, and even cause demulsification to be scrapped.
- During the curing process, pay attention to the control of the baking temperature and holding time. If the recommended baking temperature and time cannot meet the dryness requirements, it can be solved by increasing the baking temperature or prolonging the baking time.
- The air outlet of the oven should be unobstructed to facilitate the volatilization and discharge of water vapor, so as not to affect the curing speed of the insulating paint.

Package

1000kg/IBC tank，20kg/drum

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