



技 術 資 料

Technical Information



VISTEX V-2000

Acrylic impregnation adhesive

for Magnetic steel sheet cores



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VIXTEX V-2000

Impregnation adhesive for cores

VISTEX V-2000 is an impregnating adhesive for magnetic steel (silicon steel) cores. Compared to conventional adhesives, it was developed for the purpose of relaxing stress during curing and reducing core loss. Compared with VISTEX V-4000, it is characterized by low viscosity and low curing temperature.

1. Featured advantages of V-2000(in comparison with VISTEX V-4000)

- (1) Lower viscosity allows faster & easier impregnation and surplus resin removal.
- | | |
|---------------|---------|
| VISTEX V-2000 | 20mPa·s |
| VISTEX V-4000 | 50mPa·s |
-
- (2) Low curing stress (resin is flexible after curing)
- | | |
|---------------|---------------------------------|
| VISTEX V-2000 | 2Pa Young's modulus |
| VISTEX V-4000 | more than 100Pa Young's modulus |
- * The lower the Young's modulus, the more flexible.
- (3) Low curing temperature
- | | |
|---------------|-----------------|
| VISTEX V-2000 | 3hours at 150°C |
| VISTEX V-4000 | 2hours at 170°C |
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2. General Characteristics of V-2000(in comparison with VISTEX V-4000)

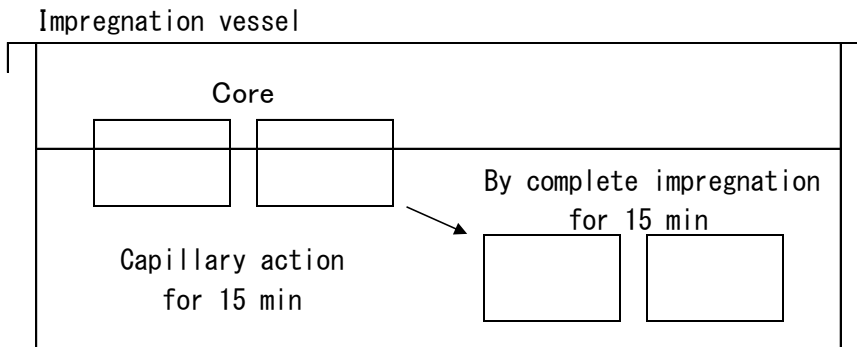
Item	VISTEX V-2000	VISTEX V-4000
Appearance	Pale yellow liquid	Pale yellow liquid
Main component	Acrylic resin (non-solvent)	Acrylic resin (non-solvent)
Viscosity(at 25°C)	20mPa·s	50mPa·s
Warranty period	6months	6months
Suggested curing conditions	150°C × 3hours	170°C × 2hours
Tensile shear strength	20MPa	More than 20MPa
T-Peel strength (Amorphous)	810mN/30mm	1200mN/25mm
Hardness (Shore D)	40	56
Thermal expansion coefficient (Temperature range : -50~+50°C)	$20.7 \times 10^{-5}/^{\circ}\text{C}$	—
Flash point	113°C	113°C
Transport of dangerous goods	Not classified	Not classified

[This data is not our guaranteed specifications.]

3. Impregnation method of VISTEX V-2000

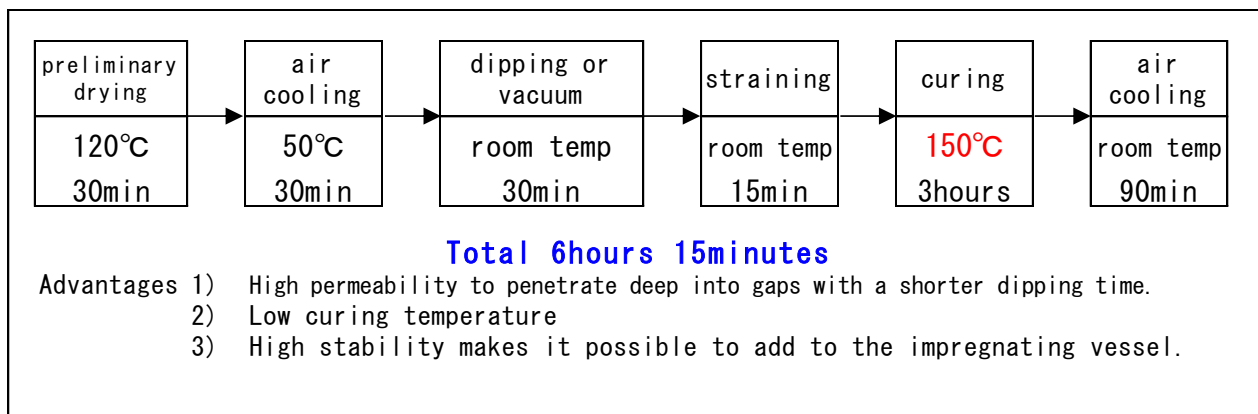
VISTEX V-2000 is significantly low viscosity liquid. VISTEX V-2000 can impregnate enough by dipping using capillary action. But as for an impregnation, please pay careful attention to avoid contamination of moisture into the impregnation vessel.

[An example of impregnation process]



4. Usage flow chart

An example of 300W transformer cut core production (core weight : 800g)



5. Safety instructions for using VISTEX V-2000

Important warning ①

VISTEX V-2000 main component is acrylic resin. In particular, some ingredients show skin sensitization (the cause of rash and eczema) . When working be sure to wear protective glasses, masks, gloves, and long-sleeved clothes that do not expose the skin, and handle in a well-ventilated environment with local exhaust ventilation. If you have problems, stop working immediately and get medical attention.

Important warning ②

VISTEX V-2000 cured product is soft and sticky. The core may not be cut well when cutting process. For that reason, cutting is difficult when the core is made of a thinner sheet than a magnetic steel sheet. If cutting is not possible even cutting speed and equipment adjusting, we recommend VISTEX V-4000. In principle, VISTEX V-2000 is recommended for use on magnetic steel sheet cores.

Other notes

- (1) If skin contact occurs, wash off with soap immediately.
- (2) If eye contact occurs, immediately rinse thoroughly with plenty of water for at least 15min. Have the medical doctor's treatment.
- (3) Be careful not to ignite by fire, static electricity or shock spark.
- (4) V-2000 can be stored in a room temperature warehouse. No refrigerated storage is required.
- (5) During long-term use, the VISTEX material may cure in the vacuum pump. Therefore, we recommend regular maintenance when using the vacuum impregnation device.
- (6) Adhesives in the impregnation tank may discolor due to long-term use without replenishment, or the incorporation of trace rust components from steel plates. If discolored, the strength does not decrease, but it may increase in viscosity. If the color has changed to brown, pay attention to the viscosity to determine whether it can be used.
- (7) Please Use a dry piece of paper or cloth to clean the job site and workbench. For dirt that is difficult to remove, clean with a cloth soaked with acetone. Dispose of the cloth used for cleaning immediately. When cleaning, be sure to wear protective equipment, provide sufficient ventilation, and consider fire.
- (8) Please control **the dryer temperature not to exceed 150 degrees**. In case of temperature over 150 degree, the adhesive strength will decrease and the original performance may not be obtained.

Above are only basic safety instructions. Please be sure to refer SDS before using the product.

6. About orders

VISTEX V-2000 is made to order. In principle, the minimum sales volume is 195kgs.

Please consult with our sales department before ordering.

This material was issued with the purpose of providing information based on the data available at the present time. No warranty is made as to the information given.

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