



一液型無溶劑エポキシ樹脂 PAO E 100P

One-component solvent-free epoxy resin: PAO E 100P

● 製品について(産品紹介)

代替燃料車向けの駆動技術の発達に伴い、駆動モーターは高トルク密度化、高出力密度化へと傾向が進んでおり、高効率な放熱能力によりモーターの連続出力や連続トルクを向上させています。中でも固定子巻線タイプでは、フラットワイヤー（平角線）のヘアピン技術が開発され、製造工程ではヘアピンの端部を溶接後、その端部に絶縁被膜を形成する必要があるため、一般的に絶縁被膜には固形エポキシ粉末が使用され、粉塵の多い作業環境や作業方法にはまだ改善の余地があります。

PAO E 100P はエポキシ系の一液無溶剤型接着剤であり、常温では液状であるため粉塵の危険性はありません。また、作業が簡単で含浸と加熱で完成することができ、固形エポキシ粉末と同等かそれ以上の特性を有しています。

With the development of new EV vehicle technology, motors are moving in the direction of high torque and high power. Efficient heat dissipation capabilities can improve the power and sustained torque of the motor. Among them, the motor stator winding type is based on the flat wire (rectangular wire) Hair-pin technology that has been developed to this day. The process requires welding the ends of the Hair-pin and then insulating and sealing the ends. Common solid epoxy powder is generally used. When performing insulation capping, the dust working environment and working methods can be improved.

PAO E 100P is an one-component solvent-free epoxy resin. It is liquid at room temperature and has no dust hazards. It is easy to operate and can be completed by impregnation and heating. Its properties are equal to or better than solid epoxy powder.

● 特徴

1. 一液型。Single liquid material.
2. 環境に優しい、無溶剤。 Environmentally friendly, solvent-free.
3. 高硬度、高 Tg、優れた耐候性、優れた絶縁性。High hardness, high Tg, good weather resistance, good insulation.

Features and Benefits

Single liquid material

Environmentally friendly, solvent-free

High hardness, high Tg, good weather resistance, good insulation



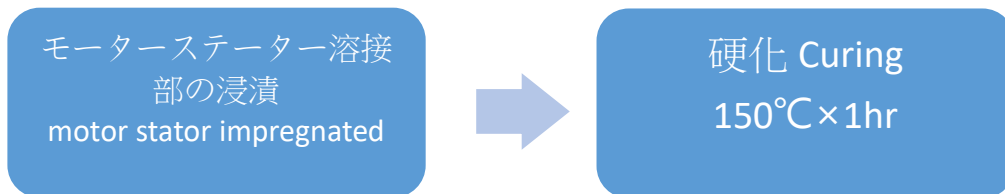
● 塗料の特性(Properties of resin)

項目 ITEM		数値 Value
固形分(%) Solid content(%)	600C	63~65
外観 Appearance	目視 Visual	液状ライトグレー材
粘度(Ps) Viscosity	Brookfield B-type	200~600(30C)
保存期限 Shelf life	RT 室温 20C	6ヶ月

上記表のデータは参考であり、規格値を表すものではありません。

Data mentioned above in this table is representative values, not specification.

● 操作手順



注：硬化条件は部品、機器によって調整する。

Note: Curing conditions are adjusted according to different conditions and oven.

● 硬化特性(Cured Resin Properties)

硬化条件		150C x 1hr
Tg(°C)	TMA	133
硬度 Hardness	Shore D	70~80
熱循環 Cold and Hot cycle	-40 ~ 150C x 100cycle	PASS
絶縁破壊強度(kV/mm) Dielectric strength	絶縁耐力試験機	16~22

● 備考(Note)

1. The curing process varies under different conditions. For initial usage, please consult with our technical department.
2. The attached data are typical characteristics, which may vary due to differences in testing instruments and methods. They are for reference only and are not used as standards or specifications.