Applying New Food Grade Adhesives F-3 Procedure

Thank you for purchasing a Hisaka Plate Heat Exchanger.

- The new food grade adhesive F-3 is composed of materials that comply with the positive list system.
- Since this manual only describes the precautions and application methods for using F-3, please refer to **3 Gasketting Manual** (10 series in total) posted on our website for the attachment position on the plate.
- Drawings (Plate Arrangement Drawing and Assembly Drawing) of supplied model are to be supplied with the equipment.
- Use as directed in these Manuals for safe and proper operation and maintenance.
- Keep these Manuals in hand.
- All description details, including appearance and specifications, presented in this manual are subject to change for improvement without prior notice.
  For the latest information, please refer to our website, if necessary.

HISAKA PLATE HEAT EXCHANGER

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1 Introduction

This instruction shows the process of attaching the gasket to the plate using the new food grade adhesive F-3 for Plate Heat Exchanger (hereinafter referred to as PHE). The purpose is to ensure quality by indicating construction guidelines and management precautions.

Features and precautions of new food grade adhesive F-3

Point 1 : This adhesive conforms to the new Food Sanitation Law that came into effect in June 2020. Composed of materials that comply with the positive list system.

Point 2 : No organic solvents harmful to human health are used (because water is used as a solvent).

Point 3 : Two types of bottles, 100ml and 500ml, are available.

Note 1 : Dissolves in alcohol.

Note 2 : Please strictly follow the instruction of 4 hours or longer drying time.

Note 3 : Please refrigerate after opening, because water is used as a solvent.

2 How to apply new food grade adhesive F-3

Step 1 : Transfer to the dedicated oiler

Please transfer the new food grade adhesive F-3 to the designated oiler supplied by us before use. (Due to the low viscosity of the adhesive, the bore of the oiler is 0.5 mm.)

Using a commercially available funnel can make the transfer easy.

Photo 1. Designated oiler

Photo 2. Commercially available funnel

Step 2 : Application procedure

Note that the viscosity of the new food grade adhesive F-3 is low, so if too much is applied, the adhesive will overflow when the gasket is attached.

Please refer to Photo 3 for the amount to be applied. Apply the adhesive to the gasket attaching area so that the application width is about 1.0mm. If adhesive overflows after installing the gasket, as shown in Photo 4, dissolve the adhesive with alcohol and wipe it off with a waste cloth.

Photo 3. Approximate amount of adhesive to be applied

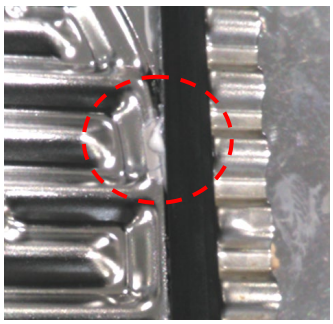

Photo 4. Adhesive overflowing

Step 3 : Drying time

Please strictly follow the instruction of 4 hours or longer drying time. It is recommended to work on the next step after drying overnight. Compared to organic solvent-based adhesives, it takes longer to dry because the solvent is water.

3 Precautions

• Application to alcoholic fluids

The new food grade adhesive F-3 dissoluble in alcohol. If the fluid contains alcohol components, please understand the following matter of concerns, and follow the precautions.

Matter of concerns

The overflow adhesive may be dissolved by the alcohol in the fluid and elute into the fluid.

Precautions

Be sure to wipe off any adhesive that overflows as described on page 2, step 2 of this procedure.

• How to store／Expiration date

The new food grade adhesive F-3 does not contain any preservatives. Please refrigerate after opening and use within one month as a guide.

For the expiration date of the unopened bottle, please check the date on the bottle container.

4 Contact information

Contact info for inquiries

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[NOTE]

- Please inform us the "MFG. Number" and "Model" described on the nameplate or Plate Arrangement Drawing and Assembly Drawing.

- For more information

  Hisaka Works, Ltd. official homepage (http://www.hisaka.co.jp/english/).

HISAKA WORKS, LTD. HEAT EXCHANGER DIVISION

Hisaka Works, Ltd., Heat Exchanger Division acquires both ISO9001 and ISO14001 certification.

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