

Product Overview

Kemtron Form-in-Place (FIP) Elastomer compounds are directly dispensed onto component hardware or enclosure via a pressurised fluid dispensing system on a numerically controlled XYZ table to form a gasket for dust and moisture sealing. The dispensing machine deposits the gasket by following a pre-determined CNC path to provide accuracy and repeatability.

The process advantages are:

- Component provides an integrated environmental gasket.
- Assembly time is reduced as gasket is included on component.
- Rapid prototyping.
- Low setup costs.
- Smaller gasket land required.
- No material waste.
- Can be applied to metal and plastic components.

Applications

Suited to applications where small, intricate gasket profiles are required, such as on multi-compartment labyrinth housings with minimum gasket land area where traditional larger types of gasket are not suitable.

This process also negates the assembly costs associated with traditional gaskets as the Form-in-Place gasket becomes an integral part of the housing or enclosure.

The process is suitable for depositing on both metal and metallised plastic components/housing.

Availability

Kemtron can dispense FIP gaskets directly onto the customer's free issue hardware or can procure the component hardware thereby reducing the customer's supply base.

Design Considerations

- The gasket height can be specified between 0.4mm to 2.0mm, gasket width will typically be 1.5x the gasket height.
- Recommended gasket compression is between 20% and 30%. Over-compression can damage the gasket and as compression stops cannot be incorporated into the gasket they should be designed into the component hardware.
- Gasket path for the deposition can be determined from a sample part, drawings or CAD files.

Production Capability

To meet the varying demands of customer requirements Kemtron has developed its own CNC Form-in-Place dispenser. FIP gasketing work has become a regular feature of our production work and we are able to provide a reliable, accurate and quick response to even high volume orders.

Kemtron has a large range of compounds suitable for many climatic conditions. Wide temperature range, chemical resistance & fire retardant grades.

Technical Specifications

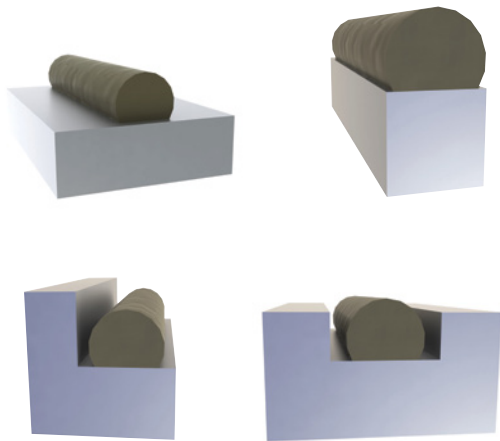
Material	Hardness	Temperature Range	Colour
Silicone Kem-14E001	37° shore	-55°C/+185°C	Black
Silicone Kem-14E002	37° shore	-55°C/+185°C	Grey
Silicone Kem-14E003	37° shore	-55°C/+185°C	White

Other grades are available for specific applications upon request.

Tolerance

General tolerance +/-0.2mm

Typical Form-in-Place Deposits



Notice

Information supplied in these data sheets is based on independent and laboratory tests which Kemtron believes to be reliable. Kemtron has no control over the design of customer's product which incorporates Kemtron's products, therefore it is the responsibility of the user to determine the suitability for his particular application and we recommend that the user make his own test to determine suitability. The product described in this data sheet shall be of standard quality, however the products are sold without warranty of fitness for a particular purpose, either expressed or implied, except to the extent expressly stated on Kemtron's invoice, quotation or order acknowledgement. Kemtron does not warrant that products described in this data sheet will be free of conflict with existing or future patents of third parties. All risks of lack of fitness, patent infringement and the like are assumed by the user.