

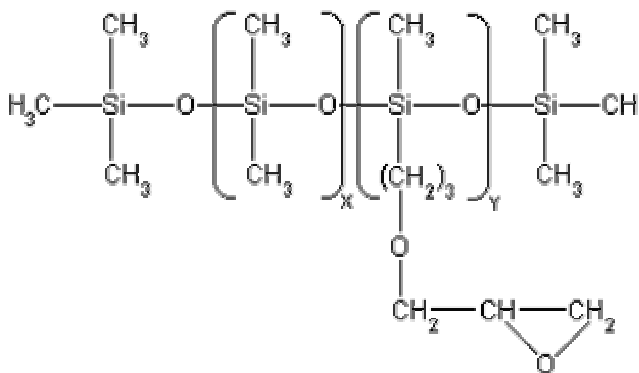
LK-EMS 5110 EPOXY SILICONE FLUIDS

LK- EMS 5110 EPOXY SILICONE FLUID is an epoxy modified silicone fluid that gives softness with a dry feel without yellowing fabrics. It is especially recommended for use with LK ASF Textile finishing fluid and LK CRX Carboxy fluids to give increased body and bounce to the fabric.

FEATURES

- Gives a soft handle with dry feel
- Resistant to washing and abrasion
- Non Yellowing
- Readily forms emulsions that are dilution stable
- Epoxy functional silicone
- 100% active
- Emulsion stable in up to 600-ppm hard water and 0.1% electrolyte.
- Can be used with other LK-ASF fluids or LK Carboxy fluids to give elastomeric finishes

STRUCTURE



APPLICATIONS

LK- EMS 5110 Epoxy Silicone Fluid can be easily converted into emulsions by using non-ionic emulsifiers. These emulsions can be used in textiles & leather to generate soft handle with a dry feel that is capable of withstanding repeated washing cycles. The emulsions can be applied alone or in combination with current durable press resins. They also give better wrinkle recovery and better tear strength to the fabric.

LK –EMS 5110 can be used alone, for which the use of catalysts such as Zirconium Acetate or Magnesium Chloride is advised to ensure durability and better performance. The above system can also be used for durable press resin systems (most popularly DMDHEU), as the catalyst is the same for both silicone and resin. Such systems are advised to give a dry feel to the fabric with good softness along with wrinkle free properties.

Softness can be increased further by using LK EMS 5110 with other LK Textile finishing fluids. LK EMS fluids are especially recommended for use with LK- ASF fluids (Non-Reactive, R Series or SS Series) or with LK-CRX 500. The blending fluid contributes its inherent properties, while the epoxy silicone fluid gives extensive body and bounce to the fabric and also reduces yellowing, if any.

They are especially useful for cotton, wool, viscose, polyester and cotton/polyester blends.

Product Name	Specific Gravity	Refractive Index	Viscosity 25° C in cps (Brookfield Viscometer LV-04)	Colour	Clarity	Volatile Content (110° C/ 1 hr)
LK EMS 5110	0.96	1.406	17000	Colorless to very light straw	Clear-slightly hazy liquid	<5%

¹ Typical Values – Should not be considered as specifications.

SUGGESTED APPLICATION METHOD AND FORMULATION

Emulsions are recommended for usage and are suitable for padding. The most suitable diluents for the macro emulsion are Water.

Suggested emulsification process for LK EMS 5110:

- | | | |
|----------------|-----|---|
| 1. LK-908 | :18 | % |
| 2. LK EMS 5110 | :15 | % |
| 3. Water-1 | :7 | % |
| 4. Water-2 | :60 | % |

(*Maintain emulsion mixture temperature below 50° C)

- Charge LK-908 non-ionic emulsifier and LK-EMS 5110 in a suitable mixer and stir for 60 minutes.
- Add Water – 1 slowly and stir for 30 minutes.
- Add Water – 2 slowly and stir continuously until homogenous product is obtained.
- Filter if necessary using normal filter cloth. This gives a 33 ± 2 % emulsion with a 15% active solids content.

Padding: An amount equivalent to 1 to 3 grams per liter active LK EMS 5110 fluid (1 liter of the above 33% emulsion in 100 liters water gives 1.5 grams active or 3.3 grams solids per liter) should be added to the padding bath along with catalyst (if any; quantity depends on the activity of the catalyst). Dosage levels depend on the fabric and feel desired for 15-20 minutes. Fabric should then be dried and cured at 160-180° C for 40-60 seconds.

PACKING

200 kg epoxy coated mild steel drums

SHELF LIFE

Nine months in the original container.

STORAGE & HANDLING

It is recommended that normal safety precautions (hand gloves & safety goggles) be taken while handling the product. The material should be stored in original ELKAY containers in a cool place and protected from direct exposure to sunlight.

The information provided to the customers in this data sheet is intended as a guideline and is provided in good faith. The Information is believed to be accurate. Changes may occur from system to system as methods of use and conditions are beyond our control, hence **users are requested to evaluate the recommendations before actual application to get desired performance.**

ELKAY CHEMICALS PVT. LTD. (ELKAY) Main Plant Office (MIDC, Bhosari) exclusively can provide you with a specific written warranty for a particular use. In the absence of this, ELKAY gives the sole **warranty that the product (or products) supplied will meet its sales specifications** (not provided on this sheet). ELKAY disclaims any other expressed or implied warranty. For current or required specifications, please contact your ELKAY distributor, representative or office.

ELKAY does not warrant the recommendations given within for their fitness for use, performance, efficacy or safety. Users are responsible for certification of use of their product and for complying with local legislation. Suggestions of use shall not be taken as inducements to infringe any patents or grant any license under a valid patent and are provided for illustrative purposes only.

Internal References PS/Ref/03/03 DX30401