

LK-ASF TEXTILE FINISHING FLUIDS

LK- ASF TEXTILE FINISHING FLUIDS are non-reactive amino modified silicone fluids that give excellent softness with durability.

FEATURES

- Gives an excellent soft handle
- Resistant to washing and abrasion
- Non-Reactive
- Readily form micro emulsions that are dilution stable
- Amino functional silicone
- Compatible with other finishing agents
- 100% active
- Emulsion stable in up to 600-ppm hard water and 0.1% electrolyte.
- Antistatic

APPLICATIONS

LK- ASF non-reactive fluids can be easily converted into micro emulsion by using non-ionic emulsifiers. These emulsions can be used in textiles & leather to generate soft handle, suppleness & silky finish that is capable of withstanding repeated washing cycles. They are especially useful for cottons, sarees, suiting, etc to impart softness and body to the fabric. Choice of fluid depends on type and degree of softness required and coloration.

PRODUCT SELECTION GUIDE

The Super softness requirement is best achieved by LK-ASF 32, which gives premium softness. If yellowing is a concern (white fabric) one can use LK-ASF 20 for a silky feel with a slight sacrifice in the degree of softness achieved. If yellowing is not of concern (dark fabrics), the best body and softness is achieved by LK-ASF 60. LK-ASF 50 gives the best inner softness and LK-ASF 55 should be used if yellowing is a concern.

PRODUCT CHART ¹							
Product Name	Specific Gravity	Refractive Index	Amine Value (mg KOH/gm product)	Viscosity 25°C in cps (Brookfield Viscometer)	Appearance	Clarity	Volatile Content (110°C / 1 hr)
LK ASF 20	0.97	1.408	20	1000	Clear to slight hazy	Clear-slightly hazy liquid	<10%
LK ASF 32	0.97	1.408	31	1400	Clear to slight hazy		<6%
LK ASF 50	0.97	1.408	30	250 ²	Clear to slight hazy		<12%
LK ASF 55	0.97	1.408	15	250 ²	Clear to slight hazy		<12%
LK ASF 60	0.97	1.408	35	1000	Pale yellow		<4%

¹ Typical Values – Should not be considered as specifications.

² 100 cps also available on request

SUGGESTED APPLICATION METHOD AND FORMULATION

Micro-emulsions are recommended for usage and are suitable for padding. The most suitable diluents for the micro emulsion are Water. For macro-emulsification processes please contact our technical staff.

Suggested micro-emulsification process for LK ASF 32/50/60:

1. LK-903	:8	%
2. LK-ASF 32/50/60	:12	%
3. Acetic Acid (98%) -1	:0.1	%
4. Water-1	:4	%
5. Water-2	:74	%
6. Acetic Acid (98%) -2	:0.17	%

(*Maintain emulsion mixture temperature below 50°C)

- Charge LK-903 non-ionic emulsifier, Acetic Acid-1 and then LK-ASF 32/50/60 in a suitable mixer (preferably with hanging saw tooth blade agitator) and mix for 10 minutes.
- Add Water – 1 and stir for 60 minutes.
- Add Water – 2 and stir for 60 minutes.
- Add acetic Acid –2 and stir for 30 minutes or until homogenous product is obtained. Filter if necessary. This gives a 20 ± 2 % micro emulsion.

Suggested micro-emulsification process for LK ASF 20/55:

1. LK-903	:8	%
2. LK-ASF 20/55	:12	%
3. Acetic Acid (98%)	:0.27	%
4. Water-1	:2	%
5. Water-2	:78	%

(*Maintain emulsion mixture temperature below 50°C)

- Charge LK-903 non-ionic emulsifier in suitable mixer (preferably with hanging saw tooth blade agitator)
- Start mixing and add Water -1 and Acetic Acid-1. Stir for 10 minutes
- Add LK-ASF 20/55 and stir for 60 minutes ensuring there is no oily build up on the wall.
- Add Water – 2 and stir for 90 minutes. Filter if necessary. This gives a 20 ± 2 % micro emulsion.

Padding: An amount equivalent to 0.2 to 2 grams per liter active LK ASF fluid (1 liter of 20% micro emulsion in 100 liters water gives 1.2 grams active or 2 grams solids per liter) should be added to the padding bath depending 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.

PRODUCT PROPERTIES							
Product Name	Feel	Non-Yellowing	Body	Softness	Bounce	Durability	Substrates ³
LK ASF 20	Soft silky	****	***	****	**	****	C, V, P, CV, B
LK ASF 32	Super soft silky	*	****	*****	**	*****	C, V, P, CV, B
LK ASF 50	Inner softness and silky (also base fluid)	**	*	****	*	***	C, V, P, CV, B
LK ASF 55	Inner softness and silky (also base fluid)	****	*	***	*	***	C, V, P, B

LK ASF 60	Super softness with luster	*	*****	*****	**	*****	C, V, P, CV
--------------	-------------------------------	---	-------	-------	----	-------	-------------

Ratings are relative to each other and other ELKAY Textile finishing fluids (*****-Best) (*-worst)
³(C-Cotton, V-Viscose, P-Polyester, CV-Cotton/Viscose, B-Blends)

PACKING

50 kg H.D.P.E. carboys and 200-kg 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/03/01 DX30101