

## LK-ASF R ELASTOMERIC TEXTILE FINISHING FLUIDS

**LK- ASF R ELASTOMERIC TEXTILE FINISHING FLUIDS** are reactive amino modified silicone fluids that give excellent elastic properties and bounce, excellent softness with durability and novel handle.

### FEATURES

- Gives an excellent soft handle
- Resistant to washing and abrasion
- Reactive
- Readily form micro emulsions that are dilution stable
- Amino functional silicone
- Give an elastomeric film
- 100% active
- Emulsion Stable in up to 600-ppm hard water and 0.1% electrolyte.
- Antistatic
- Excellent bounce and wrinkle recovery

### APPLICATIONS

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

### PRODUCT SELECTION GUIDE

**LK-ASF R 25** fluid is recommended for an excellent balance of softness and bounce. **LK-ASF R 13** is suggested for white and lighter colored fabrics. **LKASF R 89** shows the excellent softness, bounce and increase body **LK-ASF R 32** is advised for super softness, it gives a slight sacrifice in bounce however. If yellowing is not a concern. **LK-ASF R 35** is suggested for requirements of better body and a stiffer fall, **LK-ASF R 20** fluid is recommended for an excellent balance of softness and bounce & cost **LK-ASF R 43** provide super softness along with excellent bounce.

### PRODUCT CHART<sup>1</sup>

Product Name	Specific Gravity	Refractive Index	Amine Value (mg KOH/gm product)	Viscosity 25° C in cps (Brookfield Viscometer)	Appareance	Volatile Content (110° C/ 1 hr)
<b>LK ASF R 13</b>	0.97	1.408	15	1500	Clear – slightly hazy viscous liquid	< 6%
<b>LK ASF R 25</b>	0.97	1.408	26	1000		<12%
<b>LK ASF R 89</b>	0.97	1.408	24	1200		<12 %
<b>LK ASF R 32</b>	0.97	1.408	31	1400		< 6%
<b>LK ASF R 43</b>	0.97	1.408	43	2400		< 8 %
<b>LK ASF R 35</b>	0.97	1.408	26	7000		5-10%

<b>LK ASF R 20</b>	0.97	1.408	20	1000		<10 %
<b>LK ASF R 22</b>	0.97	1.408	18	1000		<12%

<sup>1</sup> Typical Values – Should not be considered as specifications.

### 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 R 89/25/32/35/22/20:

1. LK-903 :8 %
2. LF-ASF 89/25/32/35/22:12 %
3. Acetic Acid (98%) -1 :0.1 %
4. Water-1 :4 %
5. Water-2 :76 %
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 R 89/25/32/35/22/20:

1. In a suitable mixer (preferably with hanging saw tooth blade agitator) and mix for 10 minutes.
2. Add Water – 1 and stir for 60 minutes.
3. Add Water – 2 and stir for 60 minutes.
4. 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 13:

1. LK-903 :8 %
2. LF-ASF 13 :12 %
3. Acetic Acid (98%) :0.27 %
4. Water-1 :2 %
5. Water-2 :78 %

(\*Maintain emulsion mixture temperature below 50°C)

1. Charge LK-903 non-ionic emulsifier in suitable mixer (preferably with hanging saw tooth blade agitator)

2. Start mixing and add Water -1and Acetic Acid–1. Stir for 10 minutes

3. Add LK-ASF R Fluid and stir for 60 minutes ensuring there is no oily build up on the wall.

4. 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 <sup>2</sup>
<b>LK ASF R 13</b>	Soft and bouncy	***	***	****	****	***	C, V, P, CV, B
<b>LK ASF R 25</b>	Soft and bouncy	**	***	****	*****	****	C, V, P, CV, B
<b>LK ASF R 89</b>	Soft and bounce with excellent body	***	*****	****	*****	****	C, V, P, CV, B

<b>LK ASF R 32</b>	Super soft silky	*	**	*****	***	*****	C, V, P, CV, B
<b>LK ASF R 43</b>	Super soft with bounce	*	***	*****	****	*****	C, V, P, CV, B
<b>LK ASF R 35</b>	Soft and bouncy with excellent body	***	*****	****	*****	****	C, V, CV
<b>LK ASF R 20</b>	Soft and bouncy	***	****	****	****	****	C, V, P, CV, B
<b>LK ASF R 22</b>	Soft and bouncy with excellent body	****	*****	****	*****	****	C, V, P, CV, B

Ratings are relative to each other and other ELKAY Textile finishing fluids (\*\*\*\*\*-Best) (\*-worst)  
<sup>2</sup>(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.**

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Internal References PS/Ref/03/01 DX30201