

LK-ASF R ELASTOMERIC Textile finishing FLUID

PRODUCT INFORMATION

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

KEY FEATURES

- Gives an excellent soft handle
- Resistant to washing and abrasion
- Reactive
- Amino functional silicone
- Give an elastomeric film
- 100% active
- Readily forms micro emulsions that are dilution stable
- Emulsion stable in up to 500-ppm hard water and 0.1% electrolyte.
- Excellent bounce and wrinkle recovery

TYPICAL 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 22** shows excellent bounce & softness. **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** fluids is recommended for an excellent balance of softness and bounce and cost.

PRODUCT CHART ¹						
Product Name	Specific Gravity	Refractive Index	Amine Value (mg KOH/gm product)	Viscosity 25°C in cps (Brookfield Viscometer)	Apparence	Volatile Content (110°C/ 1 hr)
LK ASF R 20	0.97	1.408	20	1000	Clear-slightly hazy viscous liquid	<6 %
LK ASF R 22	0.97	1.408	18	1400		< 6%
LK ASF R 25	0.97	1.408	26	1000		<6%
LK ASF R 32	0.97	1.408	31	1400		< 6%
LK ASF R 35	0.97	1.408	26	7000		<6%

¹ Typical Values – Should not be considered as specifications.

HOW TO USE

LK ASF R can be readily formulated into micro emulsion by commonly available emulsifiers. Micro-emulsions are recommended for usage and are suitable for padding. The most suitable diluents for the micro emulsion are water. Basic formulation processes are shown below as a basic guideline, although other emulsification processes have also been shown to be effective as well.

Suggested micro-emulsification process for LK ASF R 20/22/25/32/35:

1. Lauryl Alcohol 6 Mole : 16.0 parts.
2. Acetic Acid (98%) : 0.2 parts.
3. LK ASF R 20/22/25/32/35 : 24.0 parts.
4. DM Water : 60.0 parts.

Emulsification Procedure (40 % solid content):-

1. In reactor, take Lauryl Alcohol 6 Mole as per above quantity. Mix it well for 15 minutes.
2. Then add acetic acid under mixing.
3. Then start addition of LK ASF R 20/22/25/32/35 in 6 lots in 60 min.. (approx, 4 kg in one lot)
4. After Homogeneous mixture, start addition of DM water slowly under mixing in 90 minutes.
5. Filter it by using simple filter cloth, if required
6. Appearance of final product is clear liquid.

(*Maintain emulsion mixture temperature below 50°C)

Suggested macro-emulsification process for LK ASF R 20/22/25/32/35:

1. Lauryl Alcohol 6 Mole : 8.0 parts.
2. Lauryl Alcohol 10 Mole : 2.0 parts.
3. LK ASF R 20/22/25/32/35 : 30.0 parts.
4. DM Water : 60.0 parts.

Emulsification Procedure (40 % solid content):-

1. In reactor, take Lauryl Alcohol 6 Mole & 10 Mole as per above quantity. Mix it well for 15 minutes.
2. Then start addition of LK ASF R 20/22/25/32/35 in 6 lots in 60 min. (approx, 5 kg in one lot)
3. After Homogeneous mixture, start addition of DM water slowly under mixing in 90 minutes.
4. Filter it by using simple filter cloth, if required
5. Appearance of final product is Milky white Emulsion.

(*Maintain emulsion mixture temperature below 50°C)

Attention: Above formulations are provided for illustrative purposes only, it is user responsibility to thoroughly test any formulation before use. Before conducting bulk trial, please confirm the results in Laboratory.

Padding:

Recommended application level is 0.2 to 2 grams per liter active LK ASF fluid. 1 liter of 20% micro emulsion in 100 liters water gives 2 grams solids per liter. This 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 ²
LK ASF R 20	Soft and bouncy	***	****	****	****	****	C, V, P, CV, B
LK ASF R 22	Soft and bouncy with excellent body	****	*****	****	*****	****	C, V, P, CV, B
LK ASF R 25	Soft and bouncy	**	***	****	*****	****	C, V, P, CV, B
LK ASF R 32	Super soft silky	*	**	*****	***	*****	C, V, P, CV, B
LK ASF R 35	Soft and bouncy with excellent body	***	*****	****	*****	****	C, V, CV

Ratings are relative to each other and other ELKAY Textile finishing fluids (*****-Best) (*-worst)

²(C-Cotton, V-Viscose, P-Polyester, CV-Cotton/Viscose, B-Blends)

PACKING

LK ASF R fluid is available in 50 kg H.D.P.E. carboys and 200-kg containers

SHELF LIFE

When stored at or below 32 degree in the original unopened container then LK ASF R fluid has a usable life of nine months from the date of manufacturing.

HANDLING PRECAUTIONS

Contact with skin may cause irritation. Contact with eye may cause slight discomfort.

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. 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.

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