

WACKER[®] AM - 18

Textile Softener

Characteristics

WACKER[®] AM-18 is a modified reactive aminosilicone fluid. Wacker AM-18 is easily emulsifiable to a stable microemulsion with simple stirring and emulsion of Wacker[®] AM-18 is highly stable, compatible with resin and showed much better textile finishing performance in compare to standard amino fluid.

Application

WACKER[®] AM-18 is particularly suitable as softener for the impregnation of fibres and textiles. WACKER[®] AM - 18 imparts a very soft, drapable, and elastic touch to woven and knitted fabrics. WACKER[®] AM-18 is considered to be the best softening agent for woven and knitted fabrics, made with cotton, polyester cotton, polyester and also for other blends. WACKER[®] AM-18 improves the wash-and-wear properties and compatible with the crease recovery angle chemical mix. WACKER[®] AM-18 improves sewability and tear strength and reduces abrasion loss.

WACKER[®] AM-18 has no effect on the degree of whiteness when usual application conditions are adhered to. Generally, no adverse effect on the shade or colour fastness properties of coloured textiles are observed.

WACKER[®] AM-18 is also not so hydrophobic like standard amino emulsion.

As part of formulations used as fill fibre finish WACKER[®] AM - 18 imparts excellent slickness and resilience to the fibre.

Processing

General Formulation guide:

Ingredients	% content
AM 18	15.0
Lutensol XL 50*	9.0
Lutensol XL 80**	1.8
Acetic Acid	0.2
DM water	74.0
Batch size	100.0

* C10-Guerbet alcohol polyoxyethylene alkylether containing 5 Eos (HLB 11.5), Lutensol is trademark of BASF

** C10-Guerbet alcohol polyoxyethylene alkylether containing 8 Eos (HLB 14.0), Lutensol is trademark of BASF.

- Take Lutensol XL 50, Lutensol XL 80 and 60-65% of total DM water. Mix until homogeneous.
- Add Fluid and mix until homogeneous.
- Charge Acetic acid and mix until phase change is observed.
- Charge rest of the DM water slowly and mix until the emulsion becomes homogeneous.

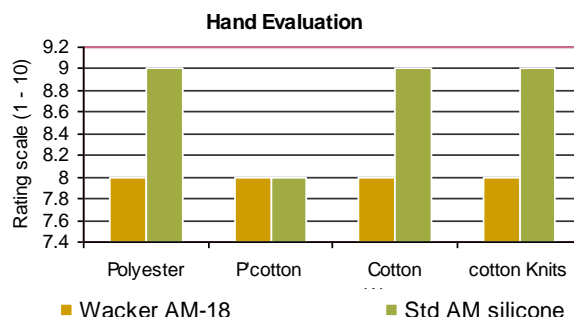
Product Performance Data:

1. Resin Compatability Test

- Resin (DMDHU 62% active) = 30 gm
- MgCl₂ = 10 gm
- Water = 245 gm
- Softener (15% active AM-18) = 15 gm
- Take "a" to "c" in a 500ml beaker and mix till all MgCl₂ dissolved completely
- Add softener and heat the liquid to 50°C.
- Stir the liquor with homogenizer at 50°C with 3000 rpm for 1 hr
- Filter the solution through a cotton knitted fabric and after filtration is over, use the same fabric to wipe the inside beaker wall.
- Dry the fabric at 140°C for 5-6 min.
- Observation: No oil spots were found on the fabric.

2. Hand Evaluation:

This test was done by experienced panel members without knowing about treatment protocol.

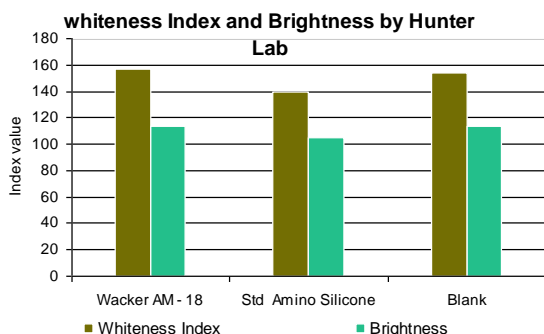


Observation: Wacker[®] AM-18 treated fabrics were comparabe in hand in respect to std amino treated fabrics.

Method:

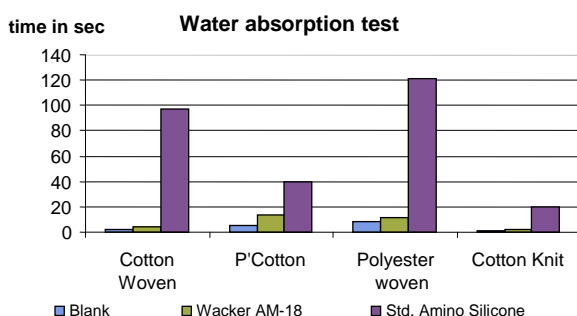
3. Whiteness Index Measurement:

The whiteness index was measured using Hunterlab colorimeter of a woven white fabric and average 10 readings were taken as a result.



Observation: Wacker® AM-18 increased the whiteness and brightness after softening process while standard amino treated white fabric become yellow and dull.

4. This test involved measuring the time in sec of a drop of demineralized water to wet the fabric.



Observation: Wacker® AM-18 has very good hydrophilicity in compare to standard amino emulsion.

WACKER® AM – 18 emulsion gives permanent effects even without the addition of a catalyst. Specific curing conditions need not be adhered to, if no resins are used.

WACKER® AM – 18 emulsion can be applied by padding method or by exhaust method. For padding, 10-40 g/l WACKER® AM – 18 emulsion (15% active) are recommended.

WACKER® AM – 18 emulsion can be applied either alone or together with resins and other finishing agents. Higher crease recovery angles and lower abrasion values can be obtained in resin finishes by using WACKER® AM – 18 . A wide range of touches can be obtained by combining WACKER® AM – 18 emulsion with conventional softening agents and other additives.

For the exhaust method, 2-4% WACKER® AM – 18 emulsion (15% active) in respect to the weight of fabrics, are adequate and the treatment should be carried out at 40-50°C for 15-20 minutes. The pH of the liquor should not exceed pH 5. It may need to be adjusted with acetic acid.

Storage

WACKER® AM –18 has a shelf life of at least 12 months when stored at 25 °C in the tightly closed original container. The 'Best use before end' date of each batch appears on the product label.

Emulsions showing signs of creaming should be agitated before use to assure uniform consistency.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

Detailed safety information is contained in each material data safety sheet, which can be obtained from our sales offices.

Product data**WACKER® AM – 18**

Appearance		Colourless clear
Weight Loss(5 gm, 105°C, 3 Hr)	[%]	≤ 5
Amine Value	mg of KOH/gm	3 - 8
Viscosity at 25°C	Cps	5000 -15000

These figures are intended as guided and should not be used in preparing specifications

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

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