

## **FORMULATION OF ENCAPSULATED VITAMIN E FILMS FOR SOAP**

Actifilms™ AF is made up of Hydroxypropyl Methyl Cellulose which is a chemically modified cellulose polymer. HPMC is a water soluble synthetic polymer which was used as film former. It is a thin, flexible sheet of polymer in which an active ingredient has been incorporated. Films rapidly disintegrate and also have greater stability and shelf life. Umang Pharmatech manufactures Actifilms™ i.e AF exclusively available in shapes and varieties of colors available for many personal care applications.

### **VITAMIN E:**

Vitamin E is commonly found in vegetation. Vitamin E or  $\alpha$  Tocopherol is widely used as a strong lipid soluble antioxidant protecting cell membranes from reactive oxygen species. It is a major ingredient in various cosmetic products. Vitamin E protects the skin from various injurious effects owing to solar radiation. Vitamin E prevents the skin aging and improves the dry skin condition. Vitamin E supports the hair growth and boosts the elasticity and shine.

### **TECHNOLOGY**

Umang Pharmatech has used the Pharmaceutical's popular technology i.e. Encapsulation and Film Casting Technology to Develop Actifilms™ with incorporation of desirable actives in personal care formulations to obtain better Visual impact, deliver desirable active ingredients and provide stable films within the formulation.

### **INCI NAME:**

Tocopheryl acetate

### **KEY PROPERTIES OF ACTIFILMS™:**

- Easy to handle at the industrial scale.
- Disappear on gentle rubbing without leaving any residue on teeth / oral case use upon application.
- Non toxic and Non irritant, soluble in water. Available in natural flavors.
- Available in different shapes & color
- Film have more flexibility and better physical properties.



### EFFECT OF ENCAPSULATED VITAMIN E FILMS FOR SOAP:

Vitamin E ( $\alpha$  Tocopherol) easily absorb into the skin. It reduced the skin damage cause by UV radiation. It helps to reduce the brown spots on the face. Vitamin E ( $\alpha$  Tocopherol) effective in reducing dark circles and wrinkles of the lower eyelids. Vitamin E ( $\alpha$  Tocopherol) which is antioxidant protects the cell from oxidative stress and it heals the damage cellular membrane. It supports the scalp and improves the growth of hair. Vitamin E ( $\alpha$  Tocopherol) use for high pigmentation, minimize the production of melanin and lighten skin.

**DOSAGE :** 0.2 % for visual effect and up to 10 % for colour or active delivery

**STORAGE:** Temperature between 5° C and 25° C

### FORMULATION PROCEDURE :

**Stage 1:**

Add components to water

**Stage 2 :**

Heat to 70C.

**Stage 3:**

Blend until homogeneous; cool to 50C.

**Stage 4:**

Adjust pH to 7.0-7.5 with Citric Acid.

**Stage 5:**

Add DMDM Hydantoin and Fragrance.

**Stage 6:**

Actifilms™ was added at the last stage and mix it very slowly.

**Stage 7:**

Cool to room temperature.

FORMULATION TIP	
SOAP	
Ingredients	Wt%
Potassium Cocoate	25.00
Disodium Cocoamphodiacetate	20.0
Lauramide DEA	2.00
Glycol Stearate	1.0
Actifilms™	0.2
DMDM Hydantoin	q.s
Fragrance	q.s
D.I. Water	qs

### KEY WORDS:

Encapsulated films ,Films for special effects ,HPMC films, dissolving Films.



**Round Shape**



**Fish Shape**



**Cross Shape**



**Star Shape**