

## **FORMULATION OF ACTIVATED CHARCOAL EXFOLIATORS FOR FACE PACK**

### **EXFOLIATORS:**

Natural Exfoliating agents are used to remove dead cells from the surface of skin and improve blood circulation, giving renewed and glowing skin. It keeps face free from dirt, collected sebaceous secretions also improves the skin appearance. Exfoliators remove dull flaky skin, even skin tone and diminish the look of fine lines to reveal radiance. Natural exfoliation spheres gently exfoliate and deep clean skin while protecting and nourishing it at the same. Umang Pharmatech manufactures Sprayspheres SE® beads containing natural products specially used for exfoliation.

### **EXFOLIATION BENEFITS:**

- Removal of dead skin cells
- Smoother, firmer skin
- Even-toned complexion
- Refined pores
- Reduces fine wrinkles, hyperpigmentation and scars
- Stimulates blood flow
- Allows for better absorption of moisturizers and serums.

### **ACTIVATED CHARCOAL:**

Activated charcoal is also called as activated carbon is a form of carbon processed to have small, low volume pore that increase the surface area (>1000m<sup>2</sup>/g) also high porosity. It is composed primarily of aromatic configurations of carbon atoms joined by random cross-linkages. Activated Charcoal has various skin properties that make it one of the best natural ingredients for the skin. Activated charcoal is not harsh for the skin.

### **INCI NAME:**

Charcoal Powder (Activated charcoal Powder)

### **PHYSICAL AND CHEMICAL PROPERTIES;**

**Appearance** - Free Flowing black colour spheres

**Solubility** - Practically insoluble in water

**Bulk Density** - NLT 0.6 gm/cc

**pH Value (1.0% Slurry)** - 5.0 to 8.0

**Loss on drying** - NMT 8.0%

### **KEY PROPERTIES OF ACTIVATED CHARCOAL EXFOLIATORS:**

- Does not disappear on gentle rub
- Preservative Free.
- Non GMO
- Provides Soft to mild Exfoliation
- Composition has GRAs status.
- Only approved synthetic & natural colors used
- Provide visual effects
- It is natural, non-toxic, non-comedogenic and non-allergenic properties and also biodegradable.
- Soft but effective abrasive, exfoliates naturally restore skin's beauty



### **EFFECT OF ACTIVATED CHARCOAL EXFOLIATORS IN FACE PACK:**



Activated charcoal is a gentle exfoliator. It helps lightly clear out dead cells from the surface of the skin. Activated charcoal pull out bacteria, poisons, chemicals, dirt and other micro-particles to the surface of skin it also sucks out impurities of the skin. Activated charcoal help to remove acne scars, dark spots, blemishes and hyperpigmentation. It also helps lighten the skin by gently exfoliating it. Activated Charcoal balances excess oil secretion and closes the open pores.

**DOSAGE:** 0.5 % to 2% for visual effect and up to 10 % for colour or active delivery.

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

**FORMULATION PROCEDURE:**

**Pre-Mix 1:** Meter out water and start heating. Sprinkle in Carbopol and mix until all lumps are dispersed.

**Pre-Mix 2:** Dissolve preservative in propylene Glycol and add to Mix.

**Stage A:** Complete stage A by adding Magnesium sulphate to mix.

**Stage B:** Melt the oils and waxes of stage B and mix, bring to temperature.

With the Silverson running slowly add the hot oils to the hot Aqueous Phase, mix briefly then add the Triethanolamine which will thicken the product. Start cooling with mixing, before the product gets too thick add the activated charcoal exfoliator and mix until dispersed, add the perfume and mix briefly. (Silverson mixing after addition of activated charcoal exfoliator should be avoided).

**FORMULATION TIP**

Ingredients	Qty (wt %)
Pre-Mix 1 Water; Pure Carbopol 940	72.050 0.200
Pre-Mix 2 Propylene Glycol USP Preservative as required	6.000 0.300
Stage A: Magnesium Sulphate	0.100
Stage B: Light Mineral Oil GMS s/e Stearic Acid-Triple Pressed Almond Oil USP, Sweet Peach Kernel Oil	8.000 4.000 3.000 1.100 1.100
Stage C: Triethanolamine 99%	0.900
Stage D: Activated Charcoal exfoliator	0.5 -2
Cooling Cycle: Fragrance	0.250

**PARTICLE SIZES OF EXFOLIATOR BEADS**

XS = Extra Small = 0.2 mm

VVS = Very Very Small = 0.2 - 0.3 mm

VS = Very Small = 0.3 - 0.6 mm

S = Small = 0.6 - 0.8 mm

M = Medium = 0.8 - 1.4 mm

L = Large = 1.4 - 2.0 mm

XL = Extra Large = 2 - 5 mm

**KEY WORDS:** Exfoliator Beads, Scrub Beads, Natural Exfoliators, Cosmetic Beads for aesthetic effect, peel off, flake off, shed off, scrap, eliminate.